

HALLIBURTON

TEMPERATURE LOG

Company		LARAMIE ENERGY		Company		LARAMIE ENERGY	
Well		SOUTH LEVERICH 18-05D		Well		SOUTH LEVERICH 18-05D	
Field		RULISON		Field		RULISON	
County		GARFIELD State CO		County		GARFIELD State CO	
API No.:		050451620800001		Serv #:		6598089	
Location:		SURFACE HOLE: 1414' FSL & 0805' FEL BOTTOM HOLE: 2268' FNL & 0706' FWL		Other Services		CBL	
Permanent Datum		GROUND LEVEL		Elevation		8008'	
Log Measured From		K.B. , 21 Ft. above perm. datum		K.B.		8029'	
Drilling Measured From		K.B.		D.F.		8028'	
				G.L.		8008'	
Date @ Time Logged		04-02-2009 @ 1630		Type Fluid In Hole		WATER	
Run No.		ONE		Density of Fluid		8.4 PPG	
Depth - Driller		10461'		Fluid Level		SURFACE	
Depth - Logger		10407'		Cement Top Est. Logged		LOGGED	
Bottom - Logged Interval		10407'		Equipment / Location		10029613 / GJ	
Top - Log Interval		SURFACE		Recorded by		P. MAZUR	
Max. Recorded Temp.		229 DEG. F.		Witnessed by		G. STAPLETON	
CEMENTING DATA		Surface		Protection		Production	
		String		String		String	
Date / Time Cemented							
Primary / Squeeze							
Expected							
Compressive Strength		psi@ hrs		psi@ hrs		psi@ hrs	
Cement Volume							
Cement Type / Weight		/		/		/	
Formulation							
Mud Type / Mud Wgt.		/		/		/	
Borehole Record		From To		Casing & Tubing Record		From To	
Run Number		Bit		Size		Weight	
		From To		4.5"		11.6#	
				SURFACE		T.D.	

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HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHOIH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

Comments

LOG WAS CORRELATED TO HALLIBURTON ACOUSTIC CEMENT BOND LOG
DATED 04-02-2009

ALL LOGGED INTERVALS PER CUSTOMER REQUEST

SHORT JOINT @ 7391' - 7412' & 9426' - 9446'

THANKS FOR USING HALLIBURTON ENERGY SERVICES (970) 523-3600

Service Ticket No.		6598089		API No.		05045182080001		PGM Ver	
The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client									
EQUIPMENT DATA									
SONIC		CCL		GAMMA RAY		TEMPERATURE			
Run No.	TWO	Run No.	TWO	Run No.	TWO	Run No.	TWO		
Serial No.	061115	Serial No.	061018	Serial No.	061018	Serial No.	0001		
Model No.	PROBE	Model No.	PROBE	Model No.	PROBE	Model No.	TEMP		
Diameter	2.75"	Diameter	2.75"	Diameter	2.75"	Diameter	1.375"		
LOGGING DATA									
General Data									
Pass	Depths		Well Head	Speed	Logging Run Comments				
No.	From	To	Pressure	Ft/Min					
TWO	10407'	50'	0 PSI	68	MAIN PASS				
	CCL		GAMMA RAY		MSG		TEMP		
Pass	Scale		Scale		Scale		Scale		
No.	L	R	L	R	L	R	L	L	
TWO	10	-1	0	200	200	1200	0	100	
DIRECTIONAL INFORMATION									
Maximum Deviation			deg. @		KOP				

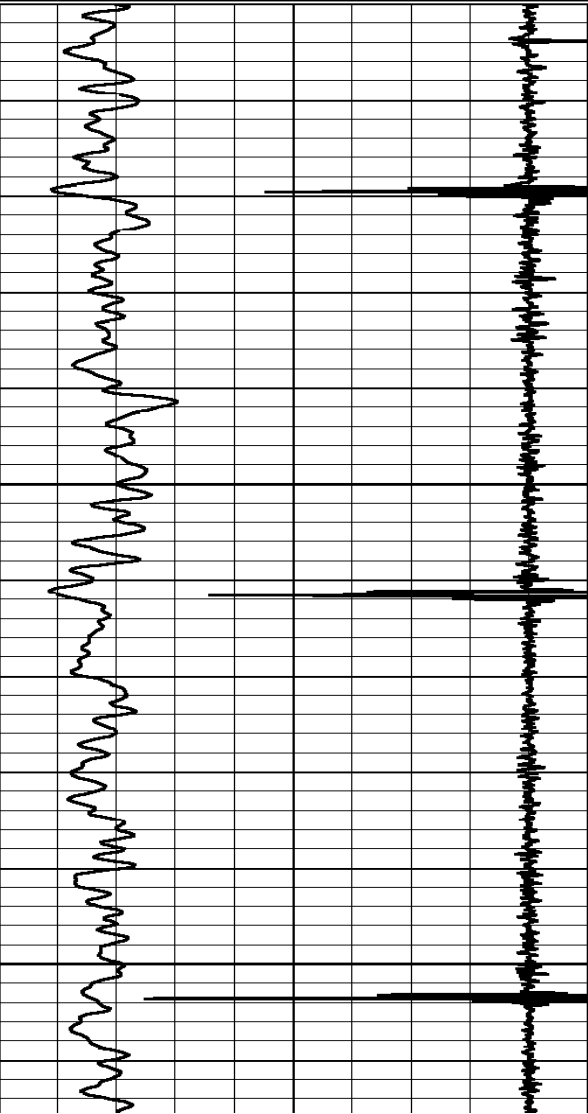
TEMPERATURE LOG

MAIN PASS
5" = 100'

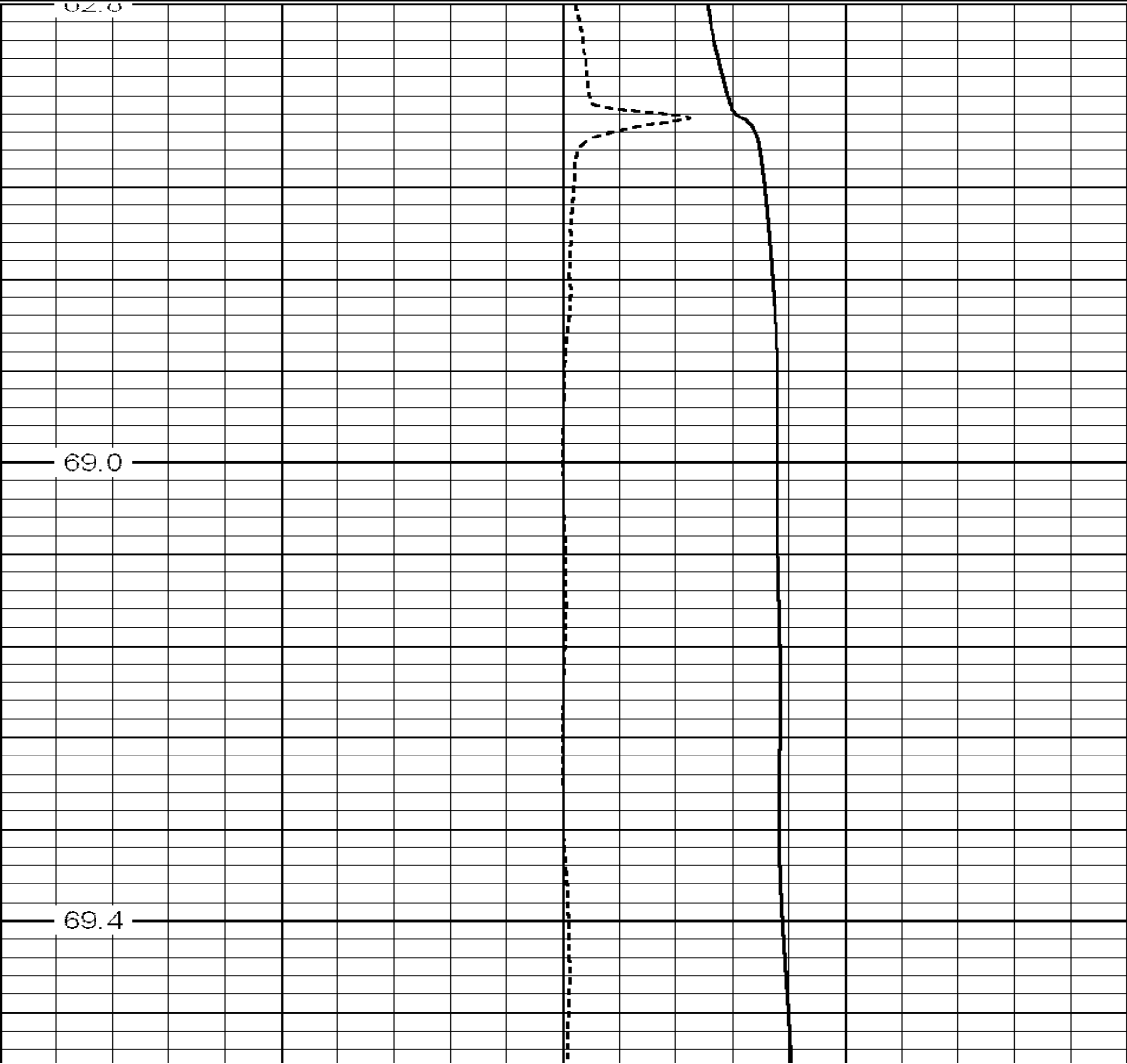
Database File: lar_s_leverich_18_05d.db
Dataset Pathname: temp_main1
Presentation Format: temp
Dataset Creation: Fri Apr 03 00:15:04 2009
Charted by: Depth in Feet scaled 1:240

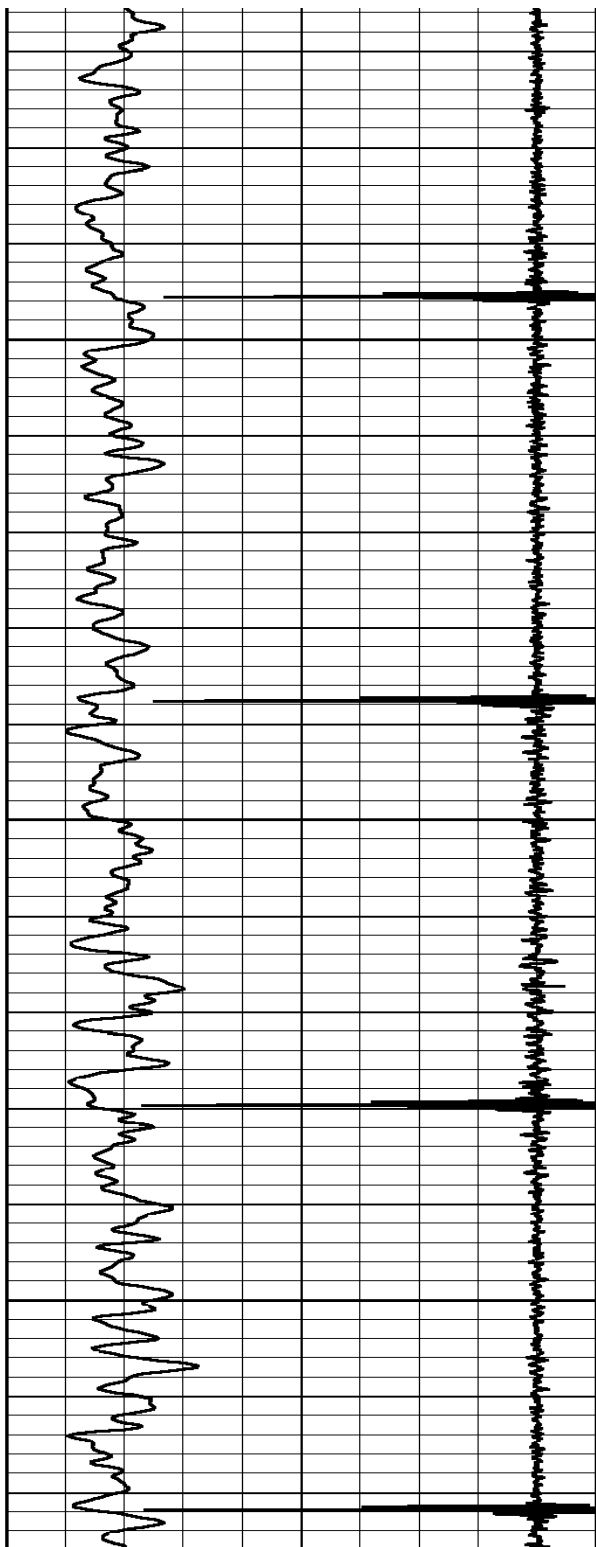
0	GR (GAPI)	200
9	CCL	-1

0	TEMP (degF)	100
-5	DTMP (degF)	5



50
100
150

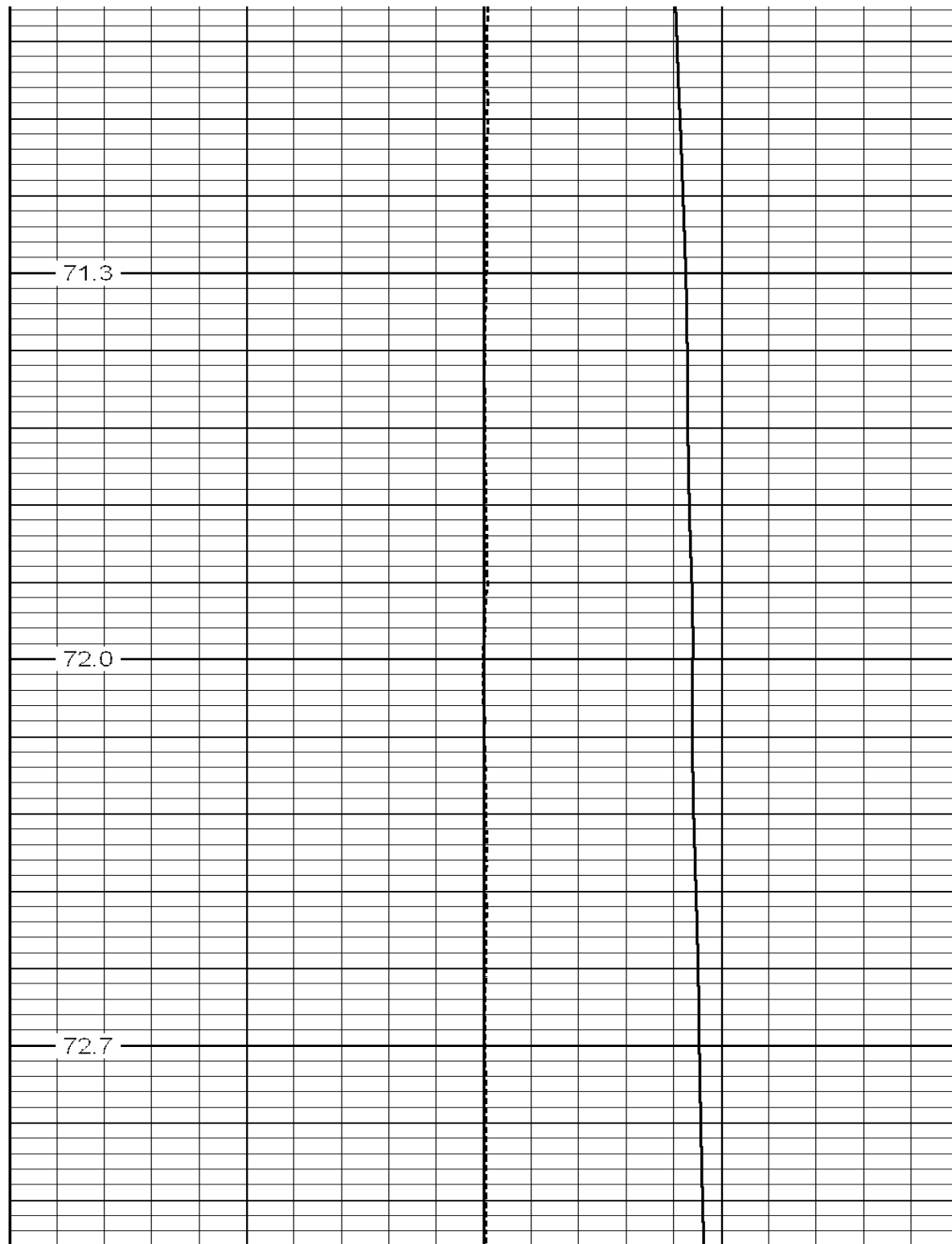




200

250

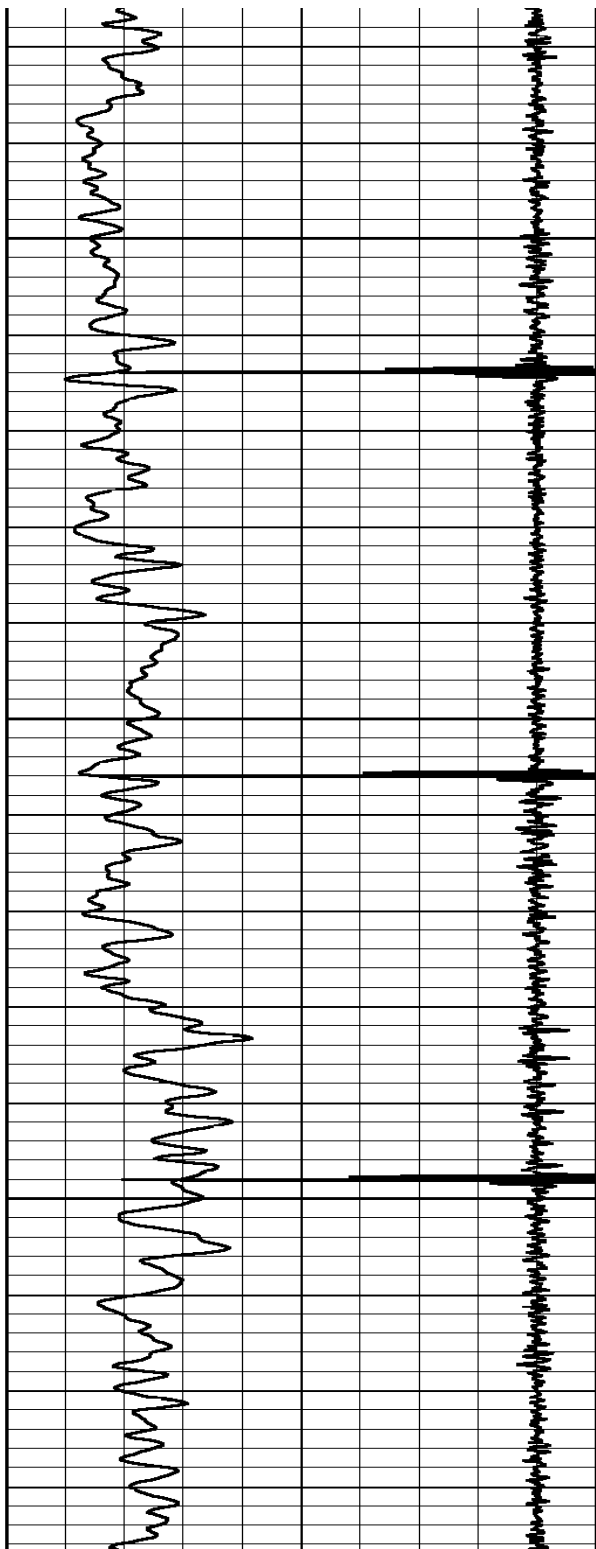
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71.3

72.0

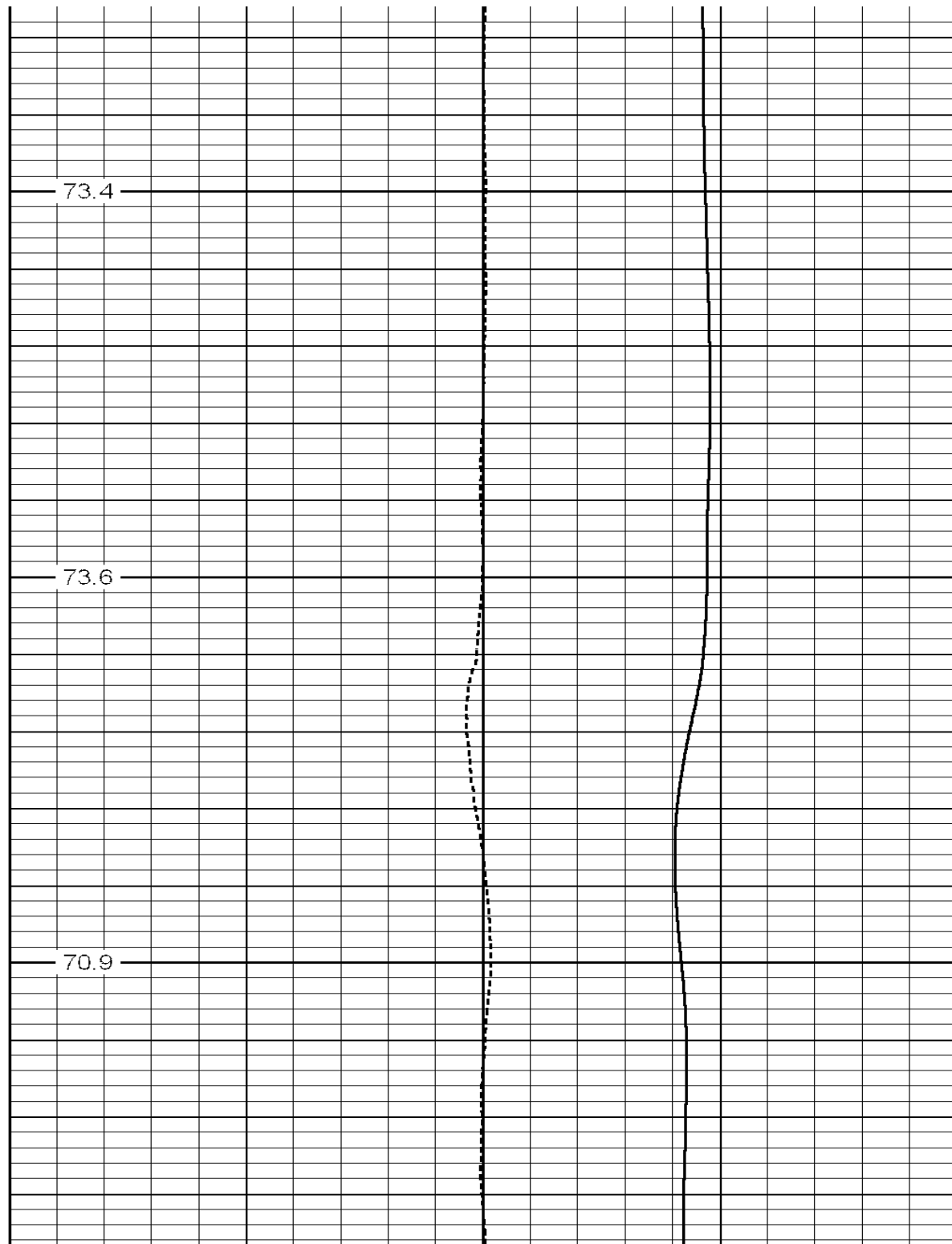
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350

400

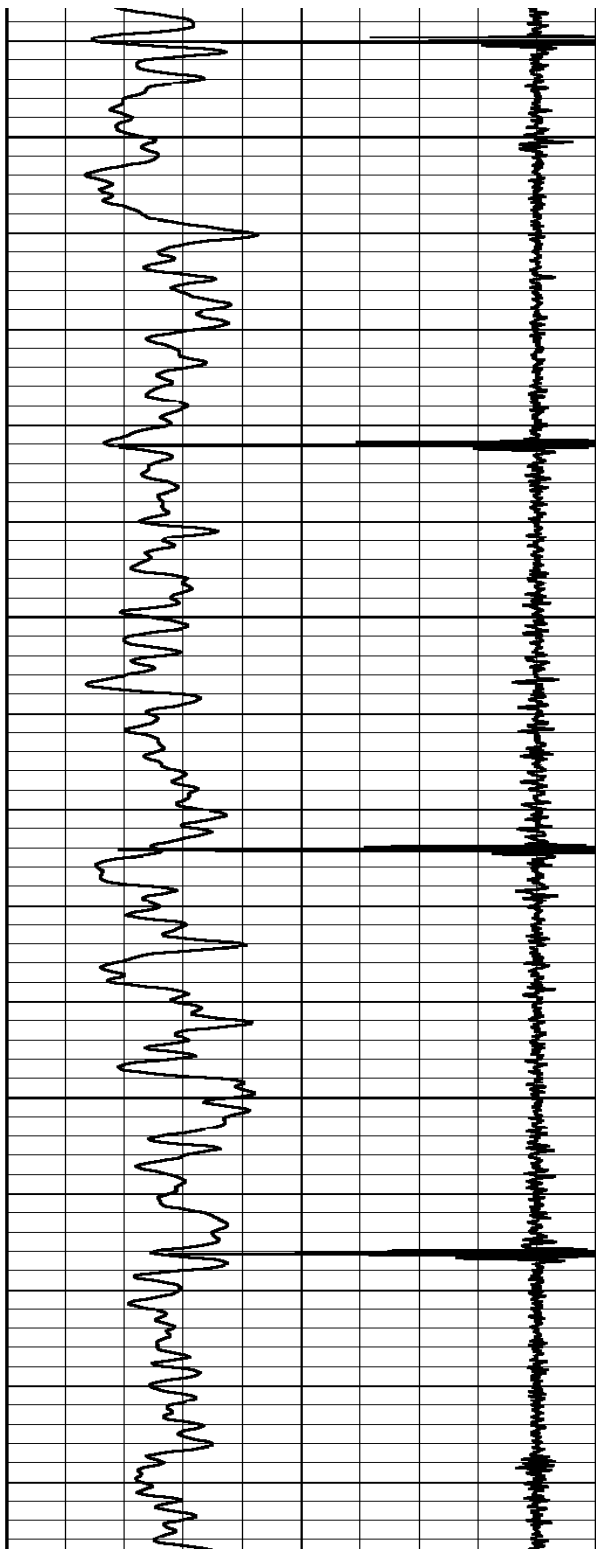
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73.4

73.6

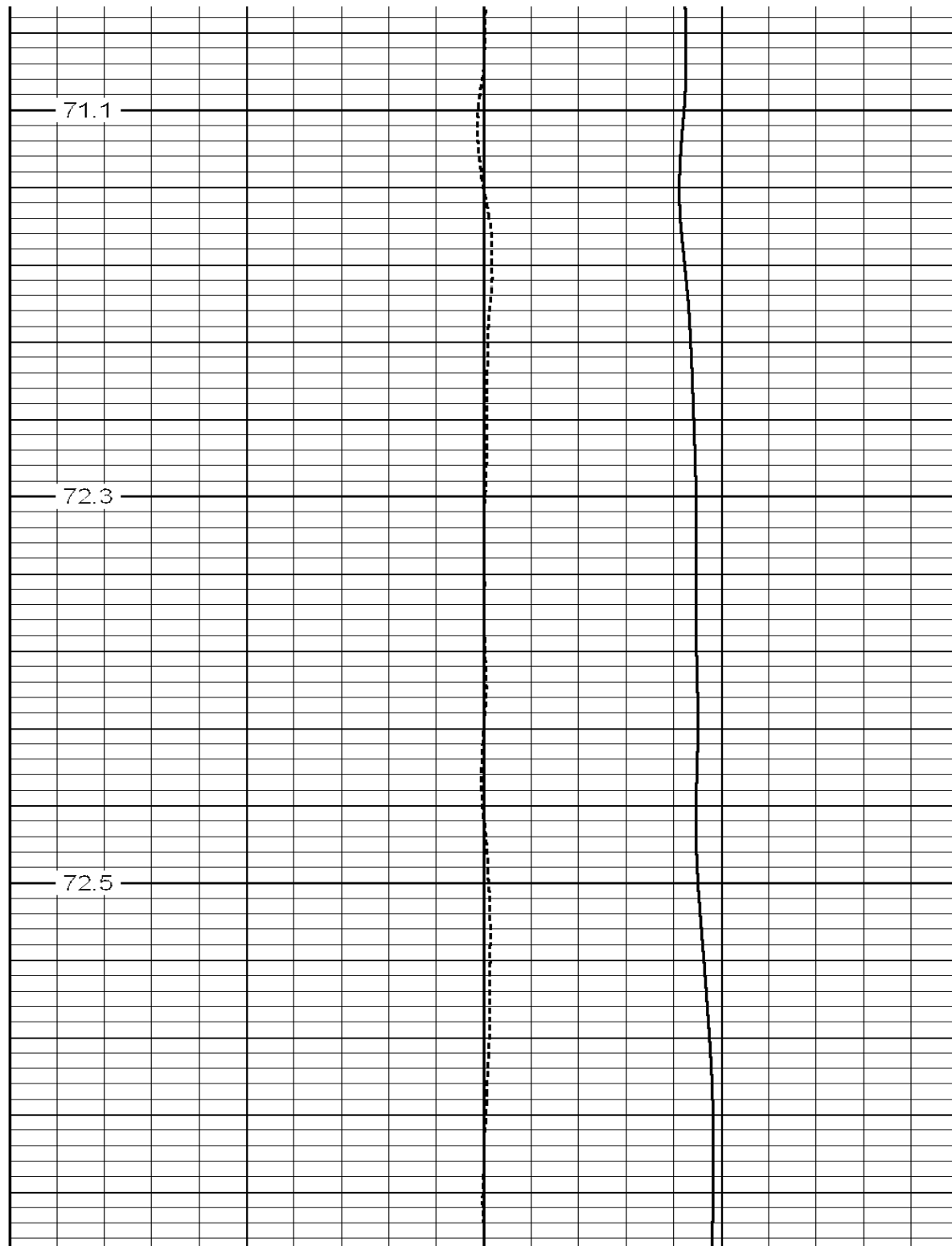
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500

550

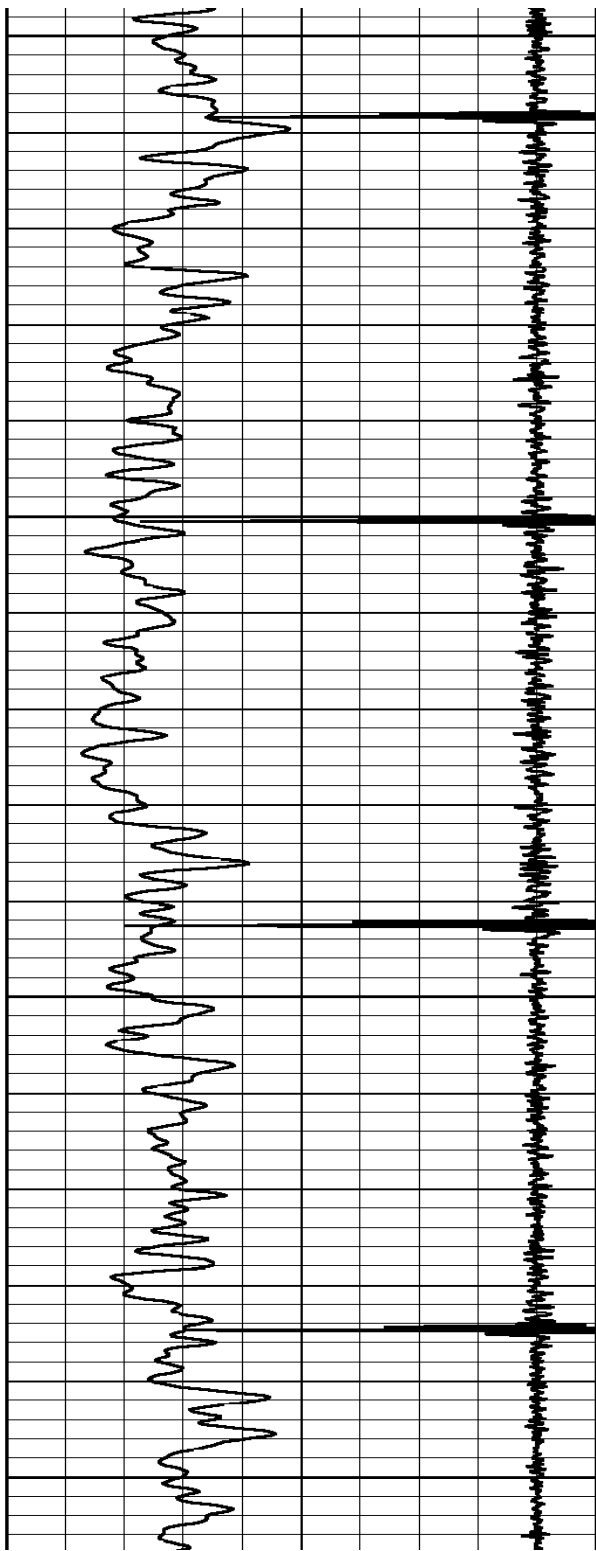
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71.1

72.3

72.5

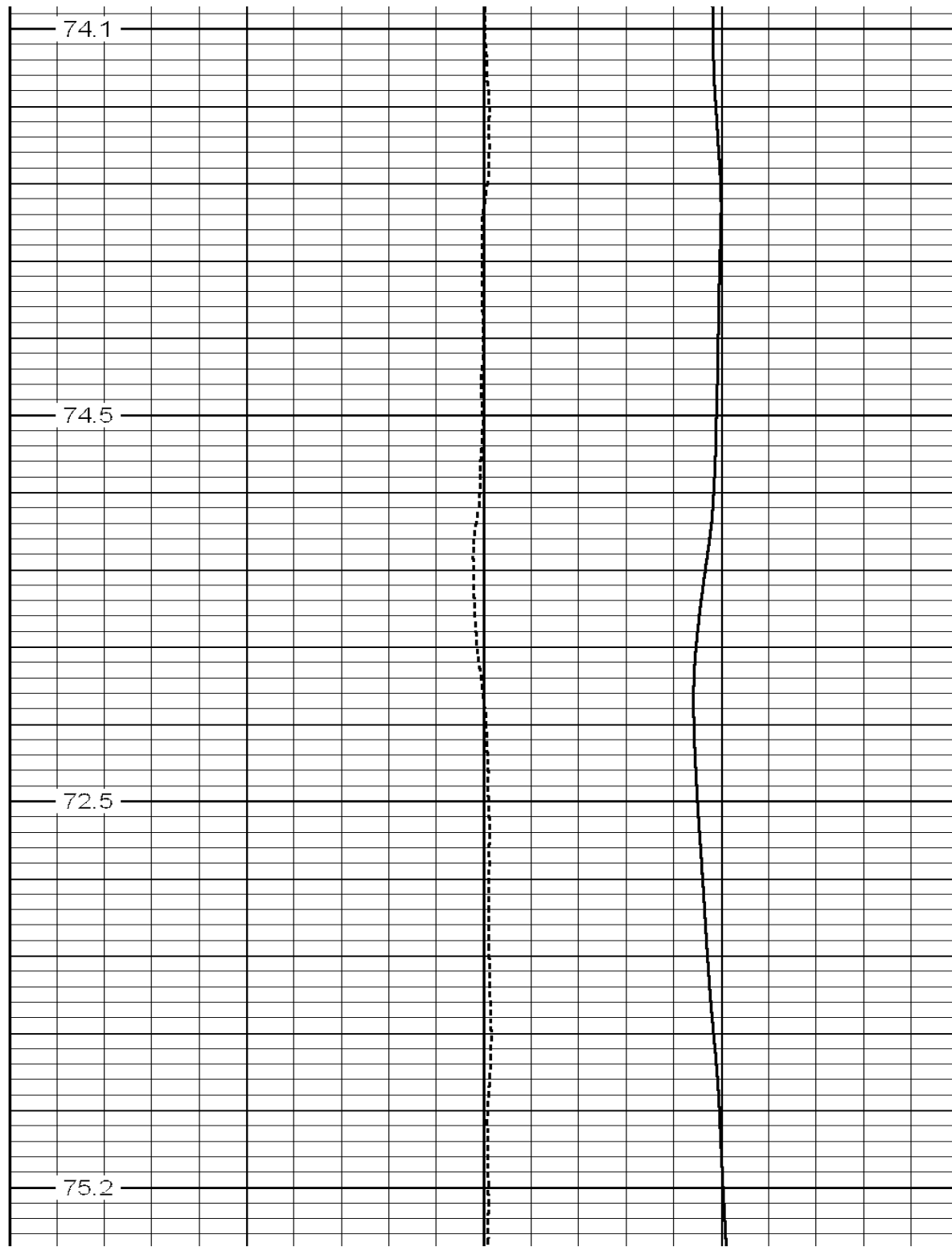


650

700

750

800

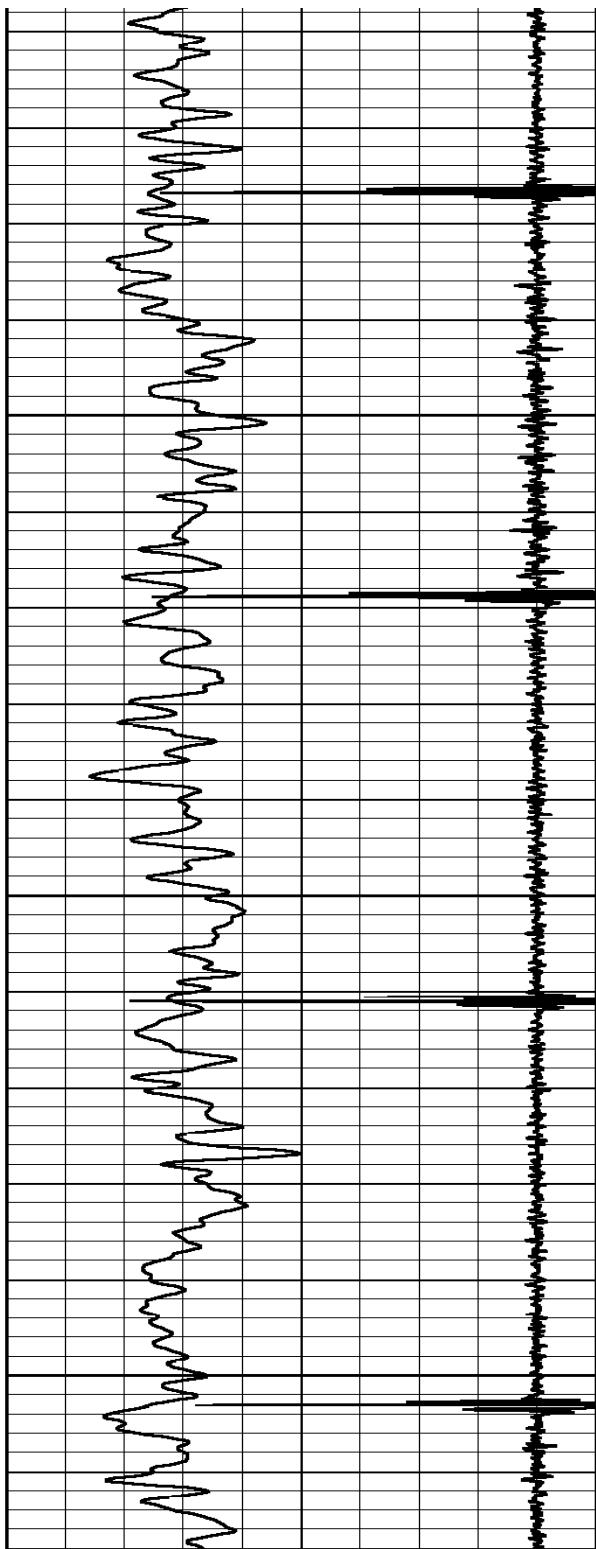


74.1

74.5

72.5

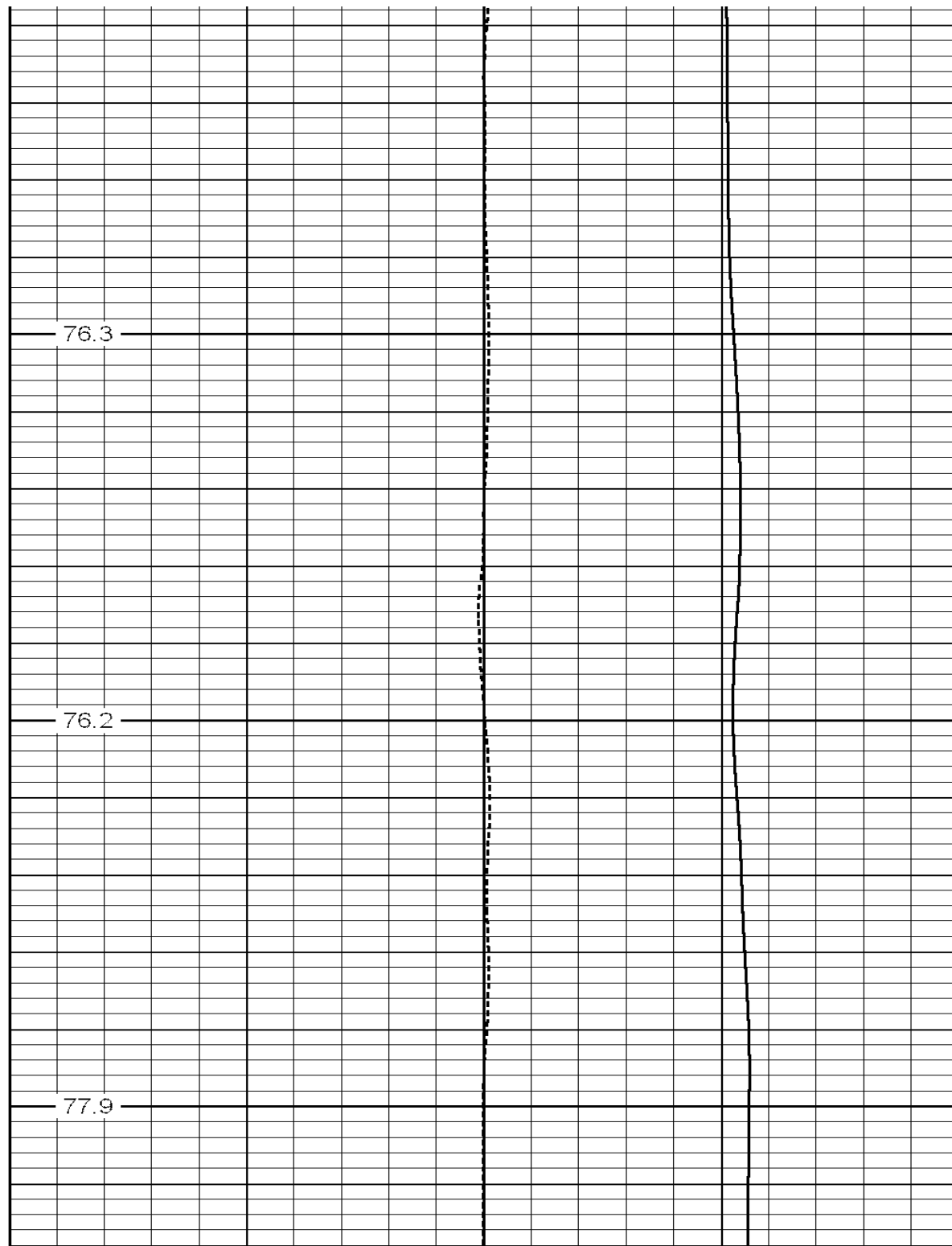
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850

900

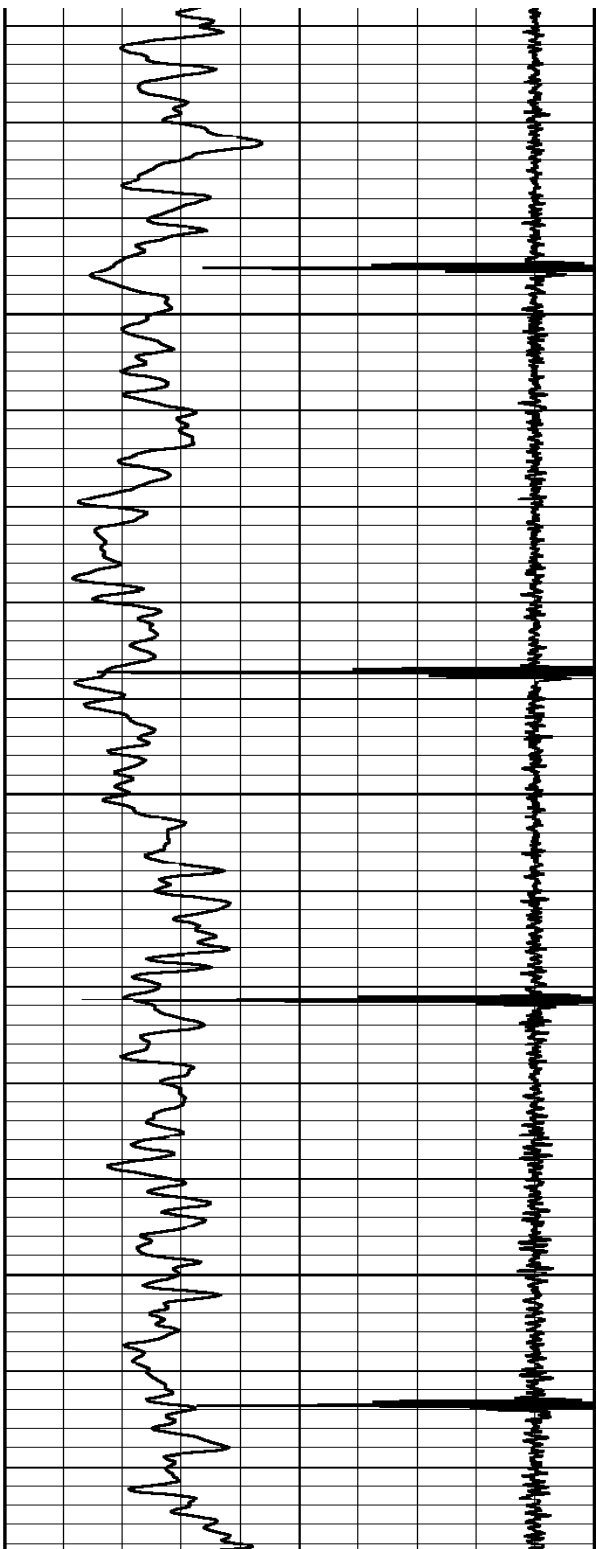
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76.2

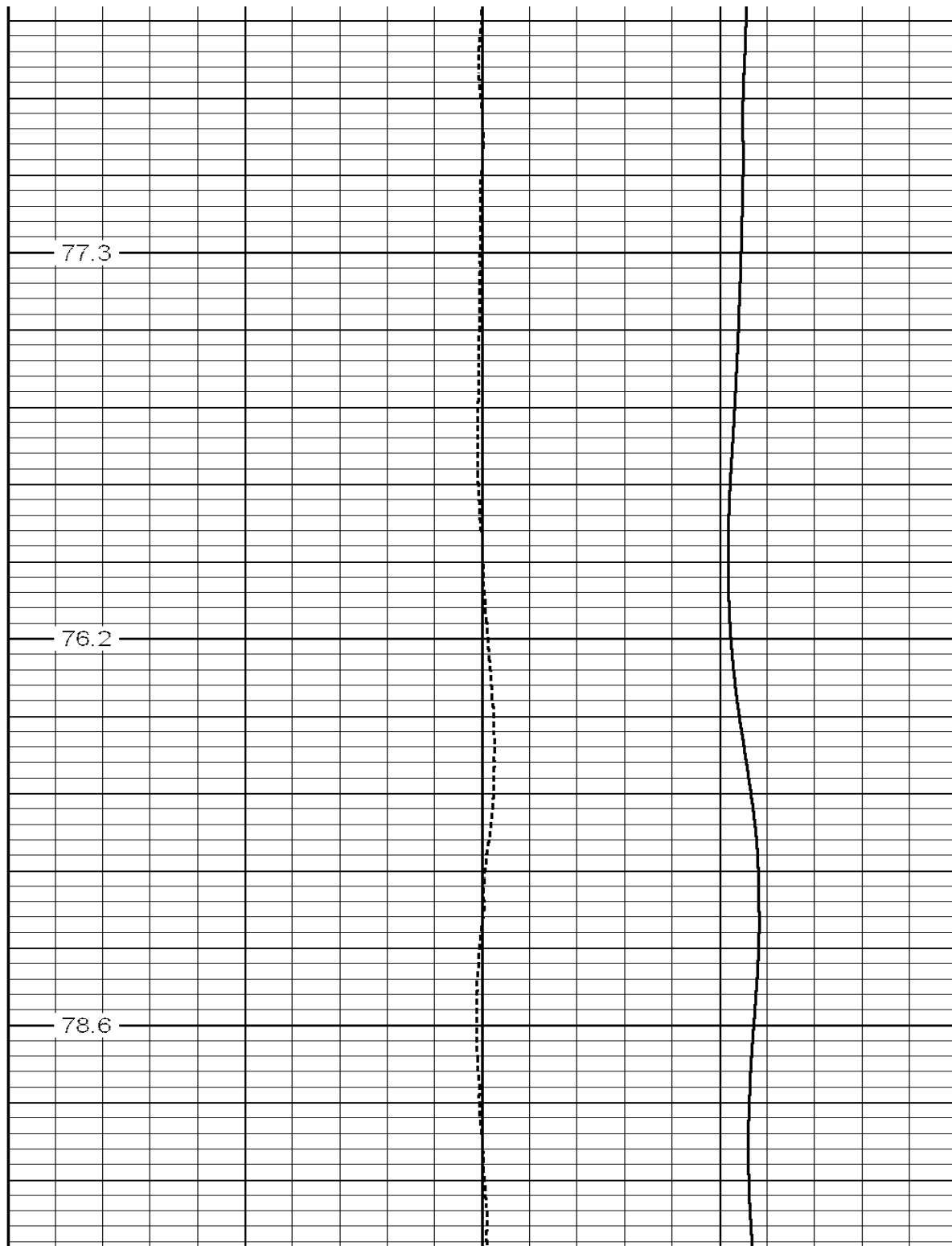
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1000

1050

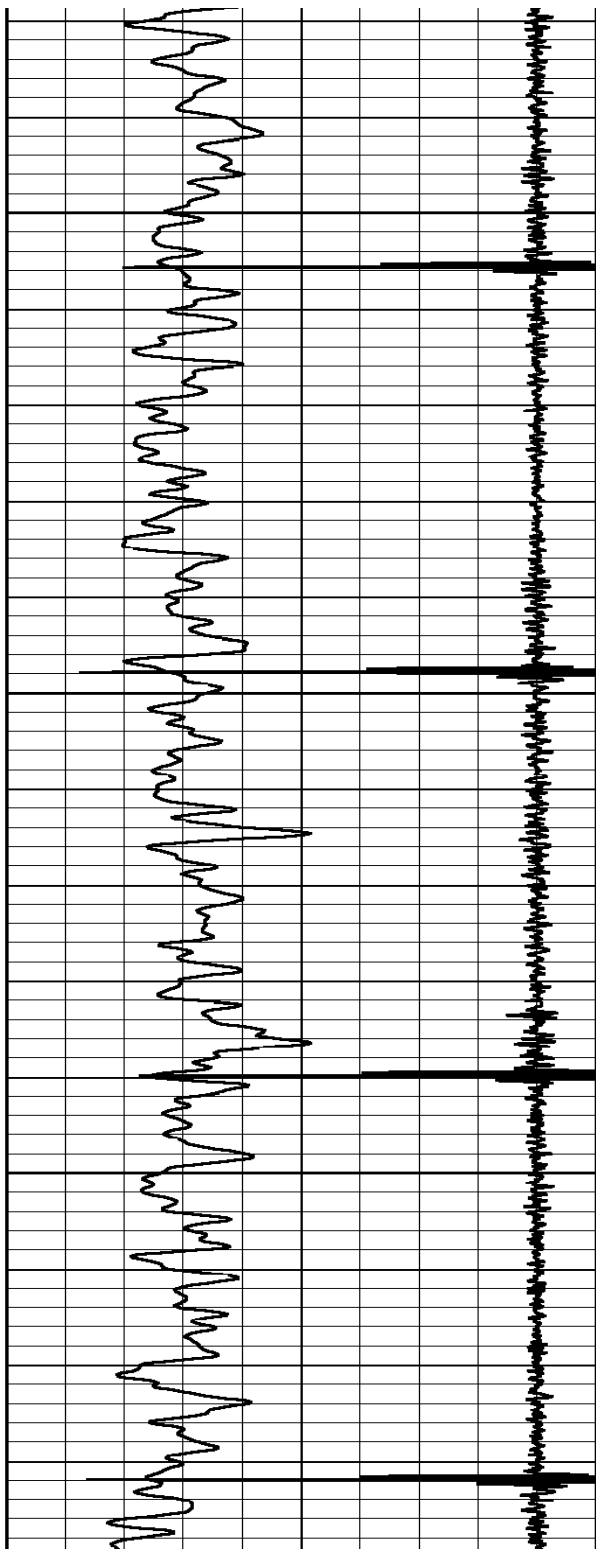
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77.3

76.2

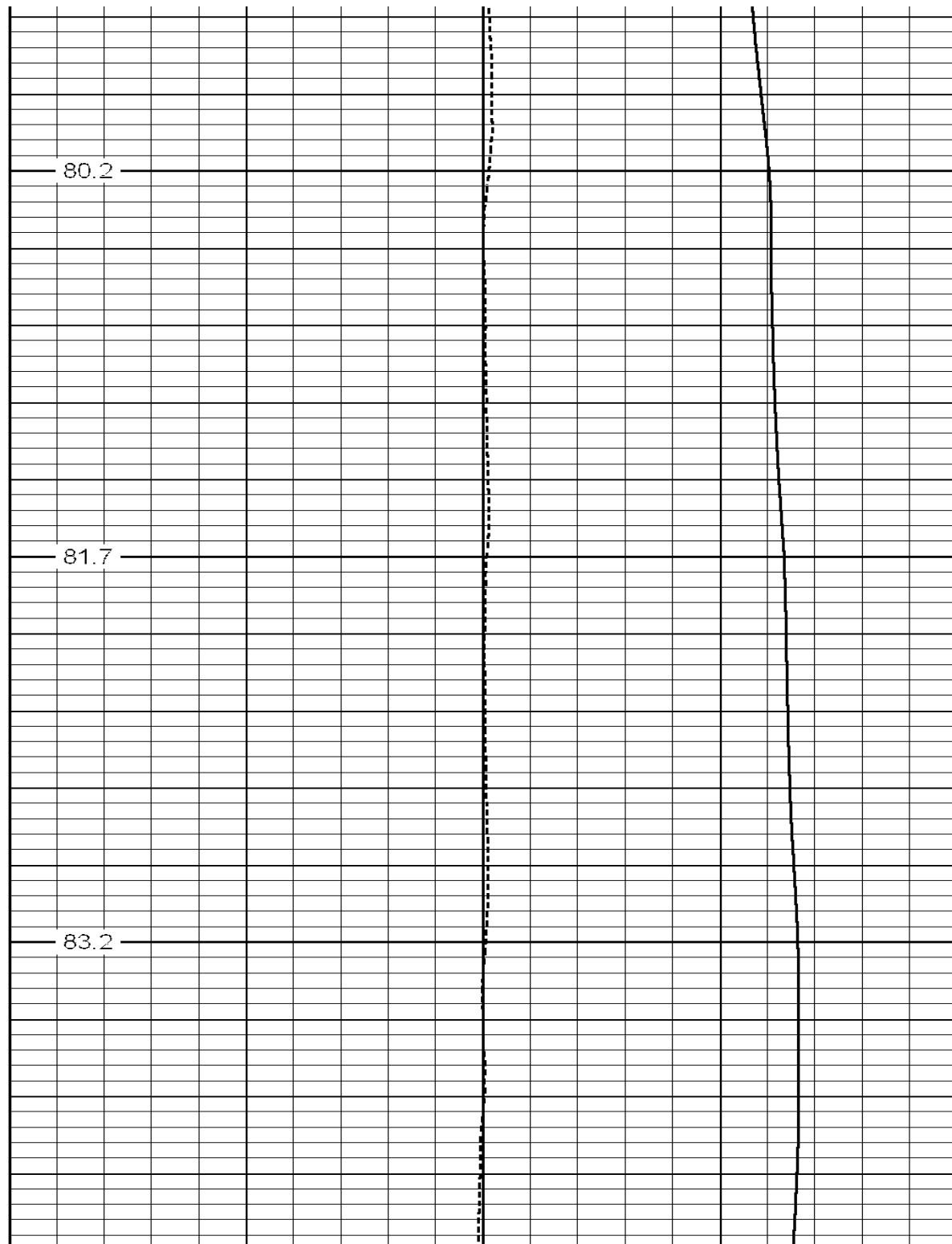
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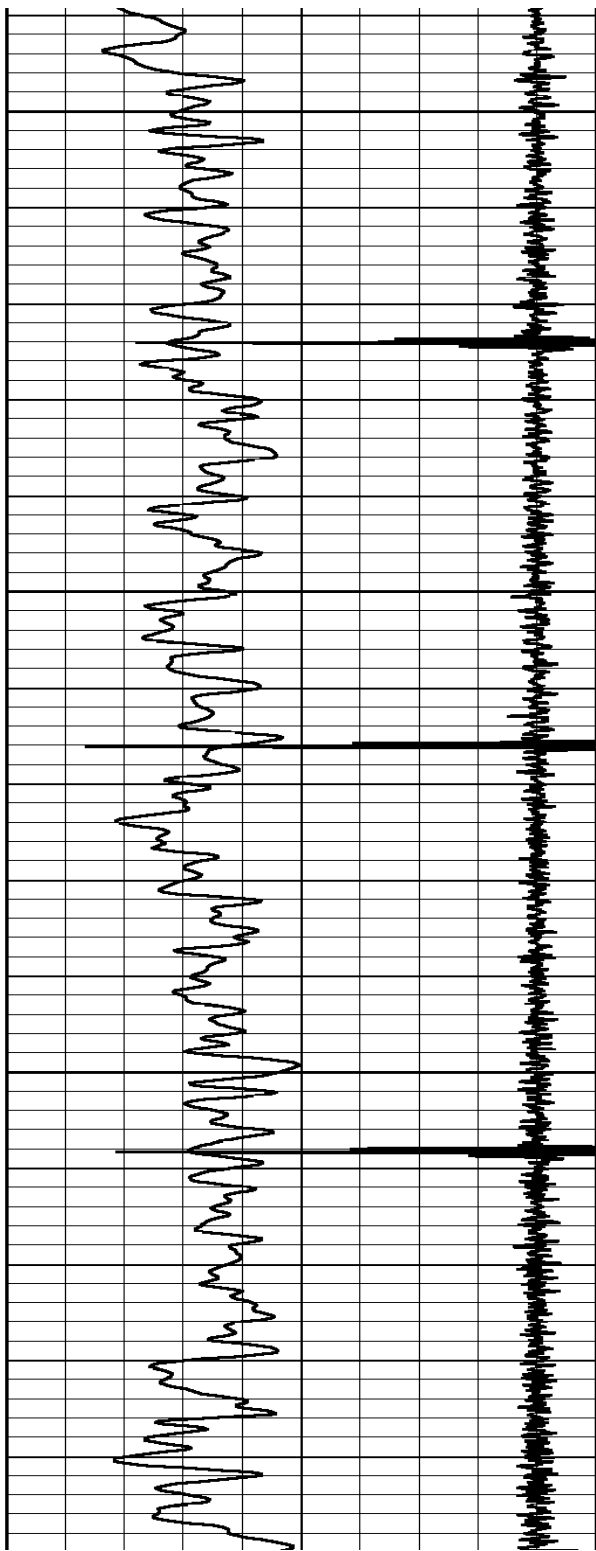


1150

1200

1250



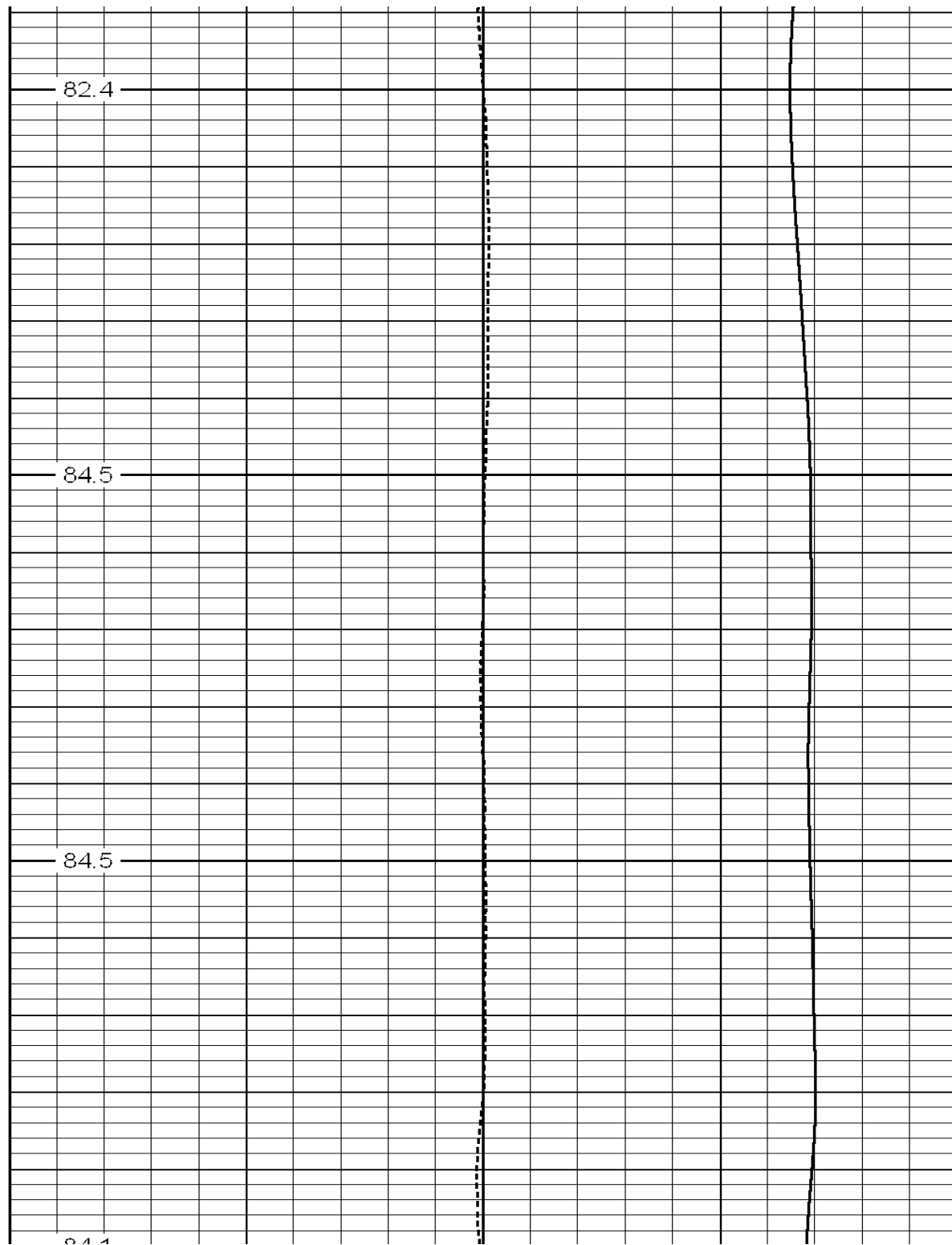


1300

1350

1400

1450

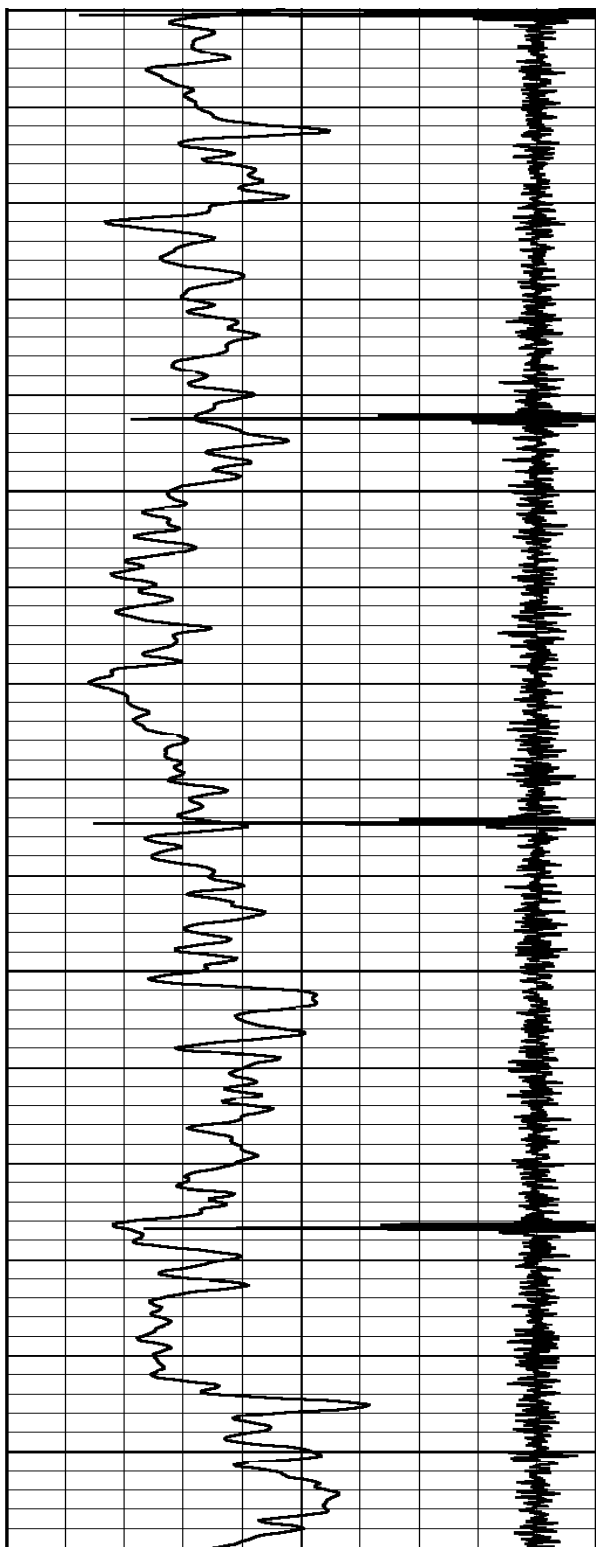


82.4

84.5

84.5

82.4

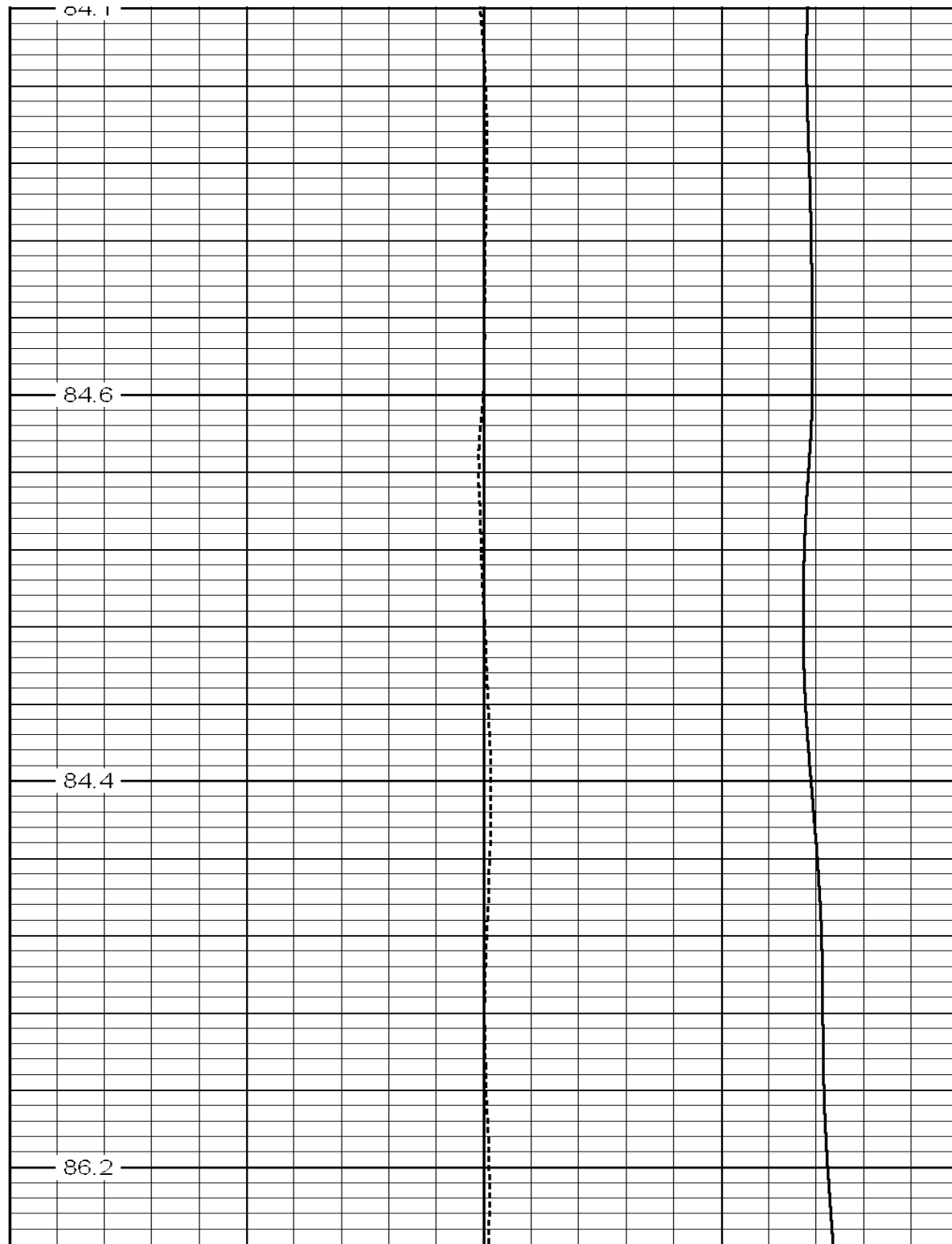


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1500

1550

1600

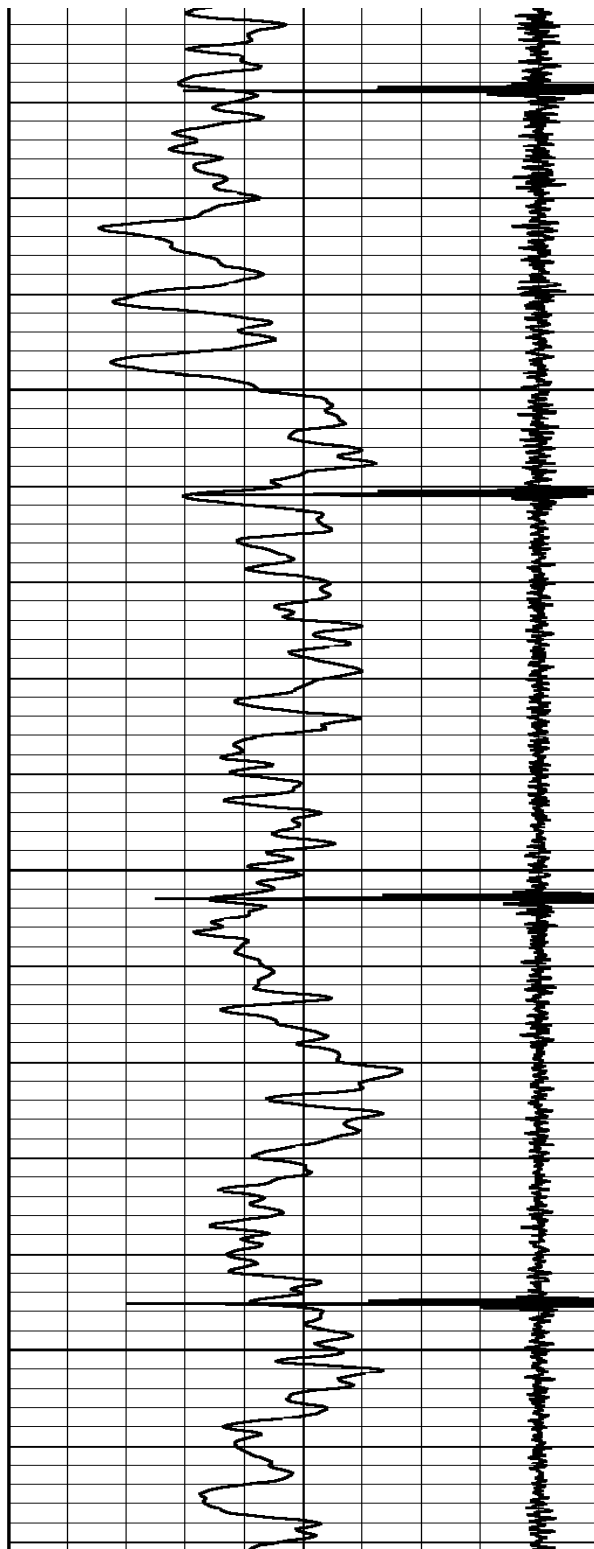


84.1

84.6

84.4

86.2



1650

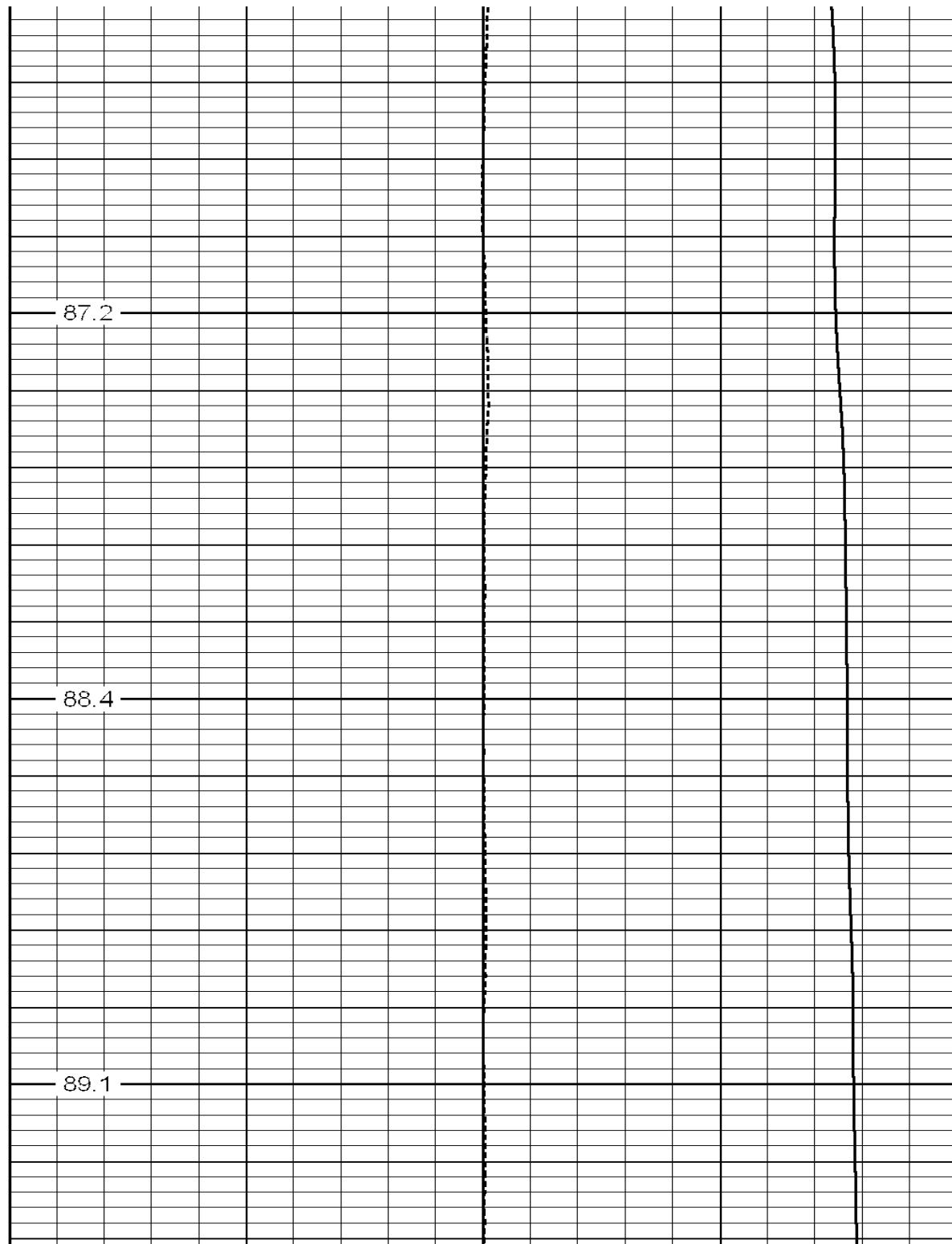
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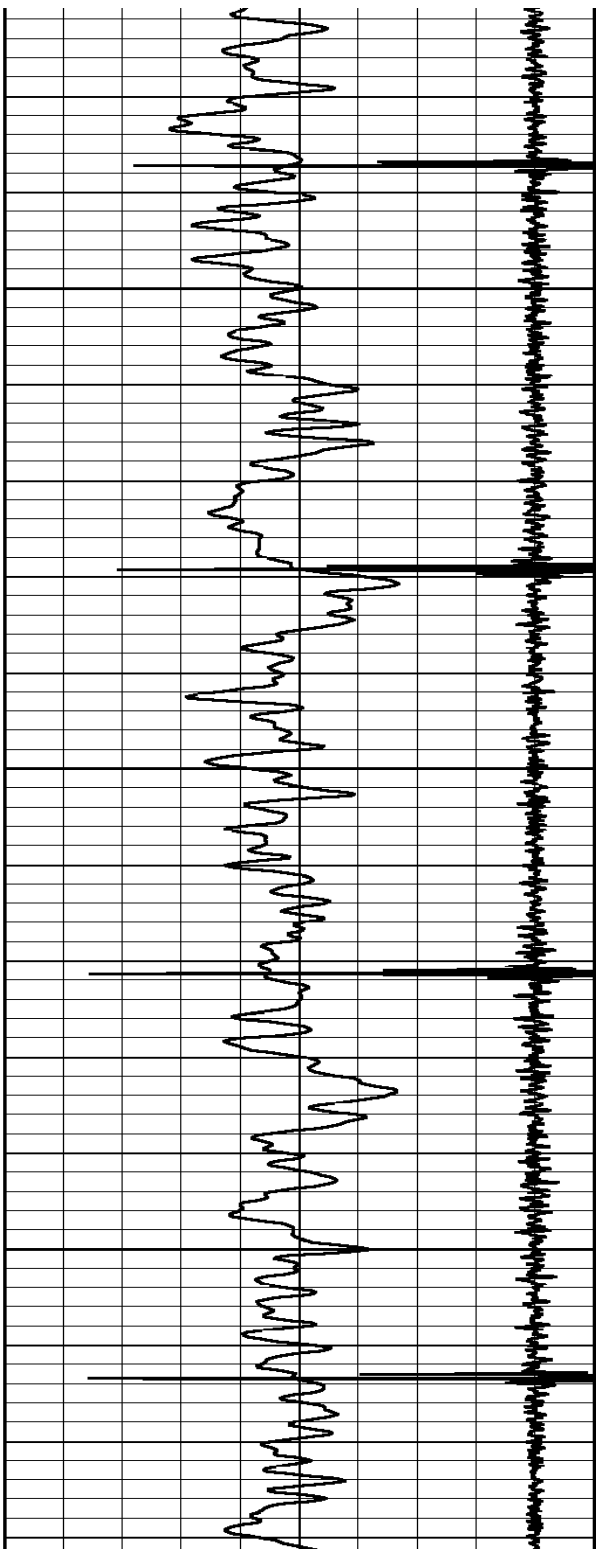
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87.2

88.4

89.1

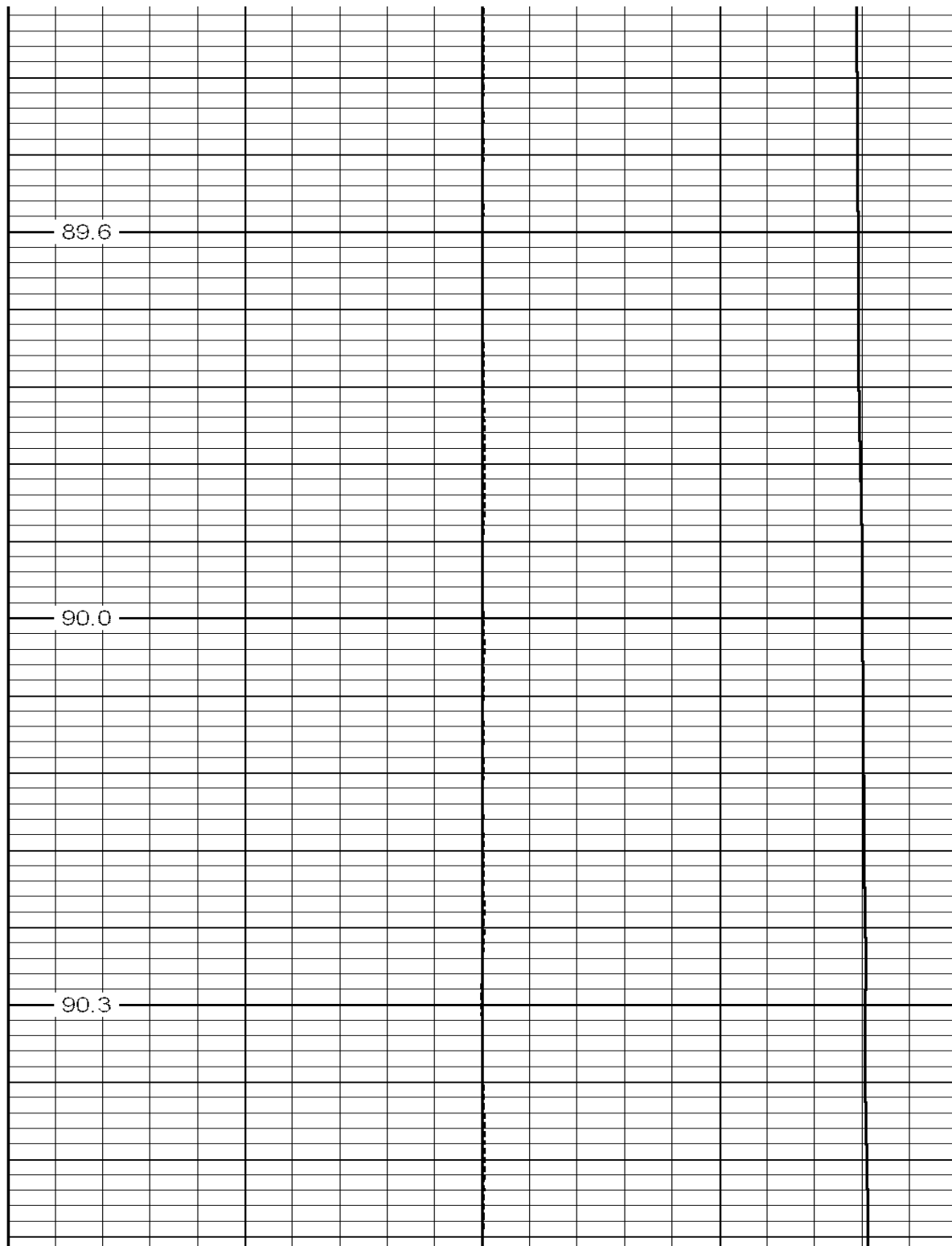




1800

1850

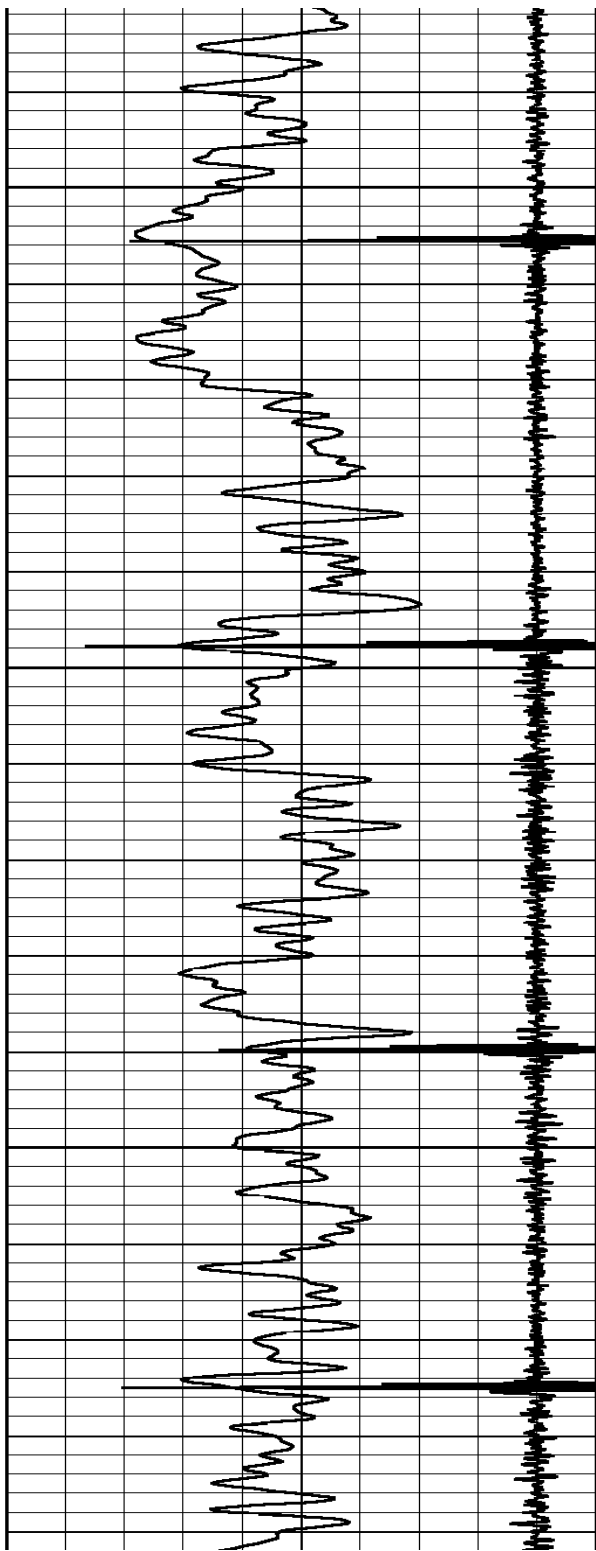
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89.6

90.0

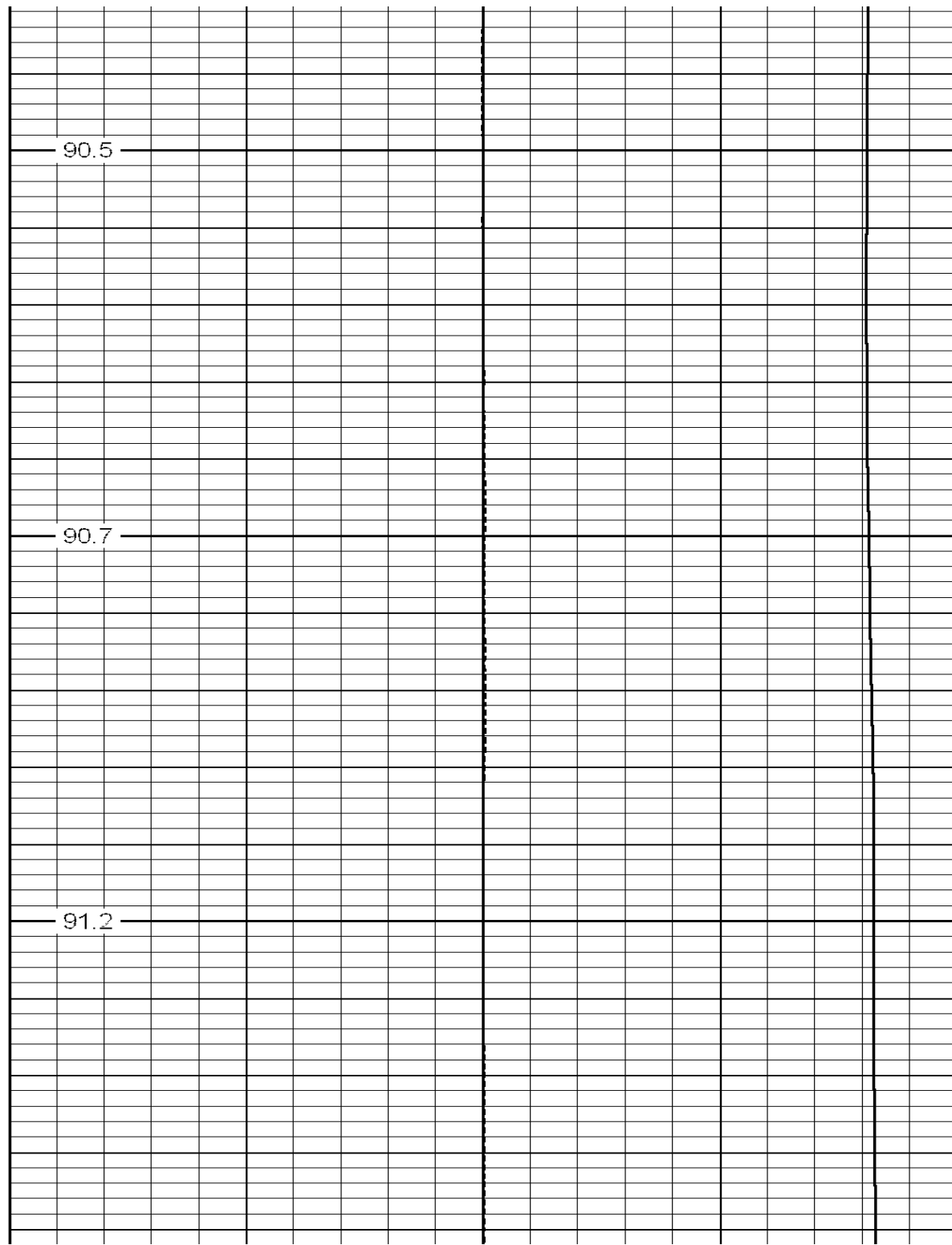
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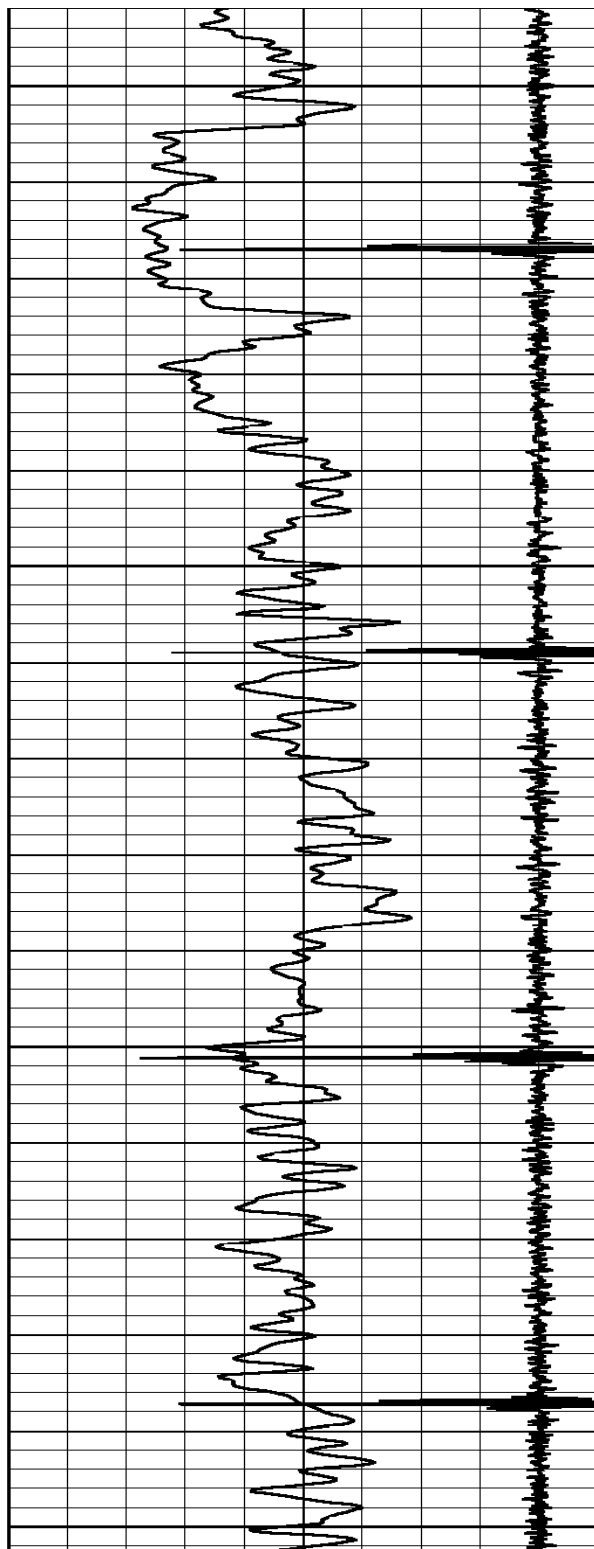


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2000

2050



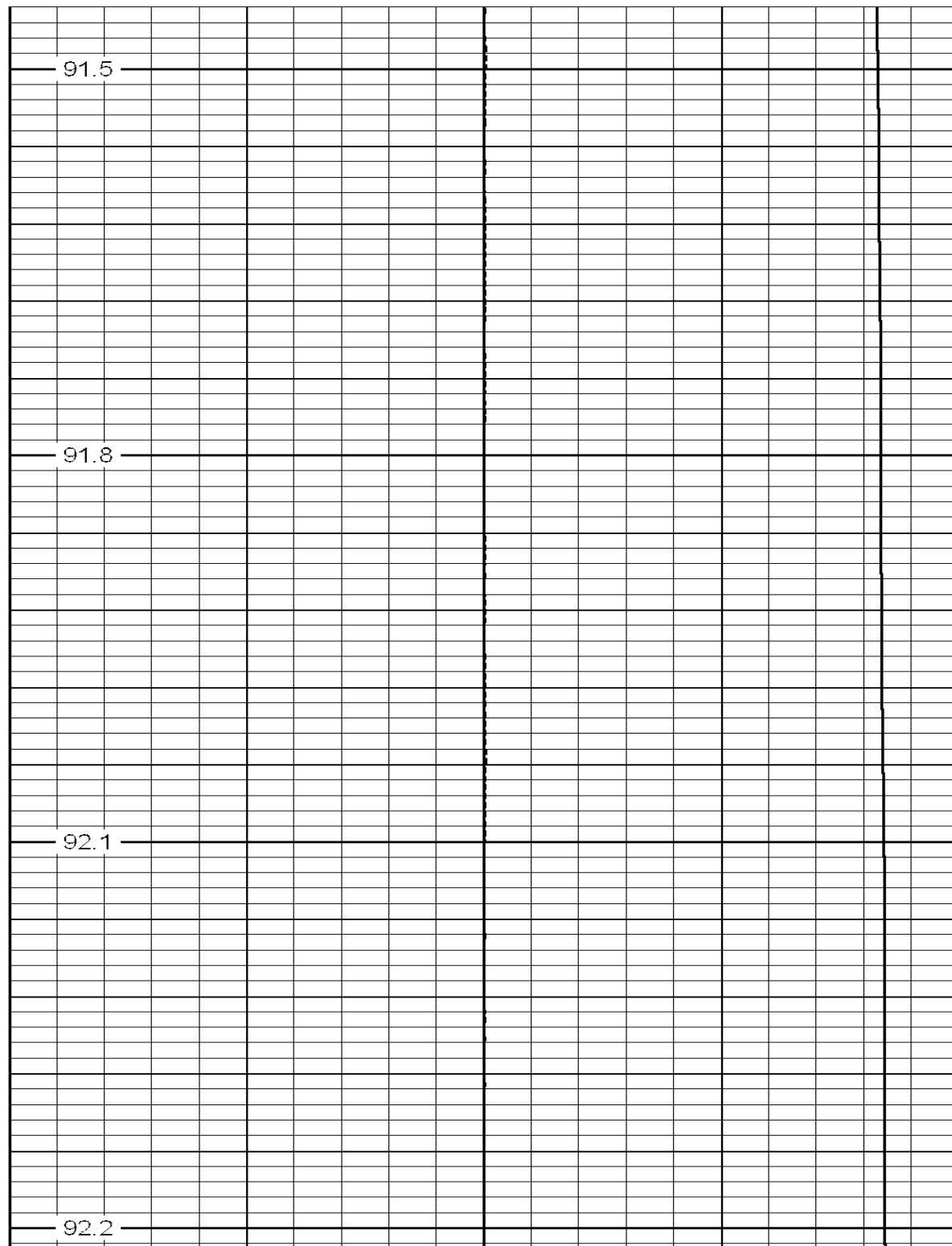


2100

2150

2200

2250

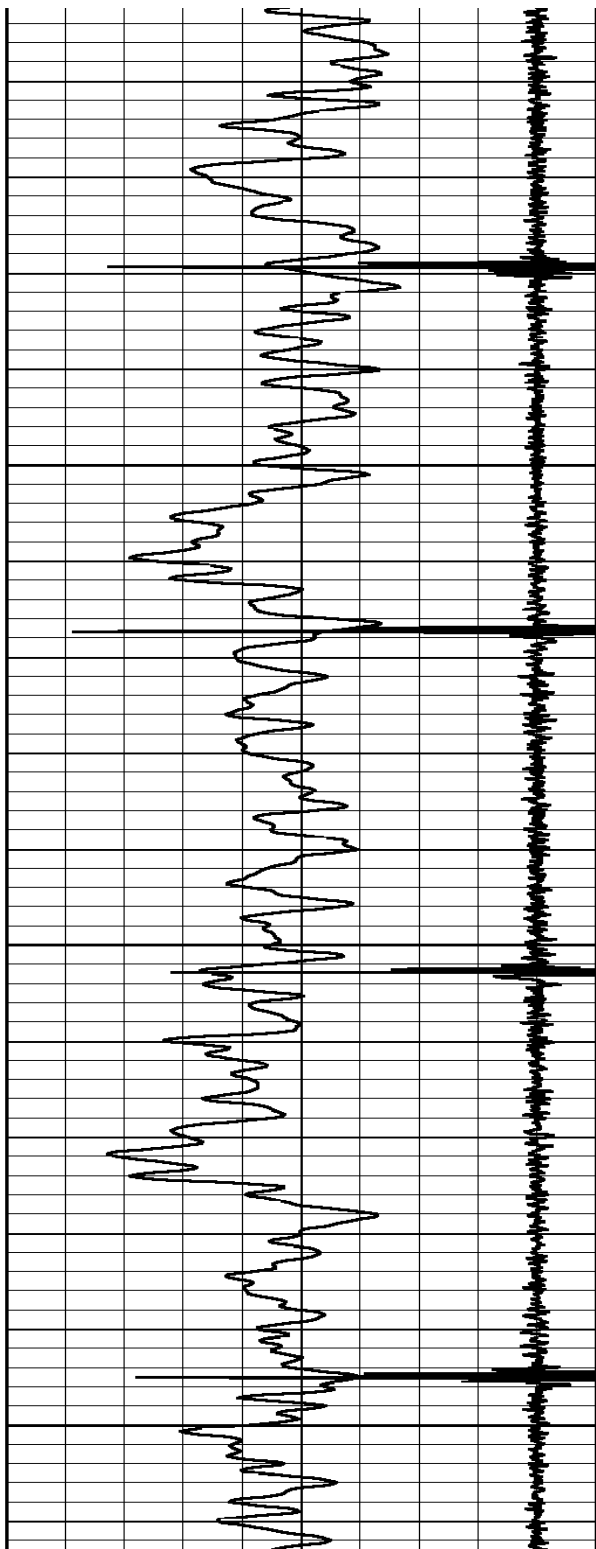


91.5

91.8

92.1

92.2



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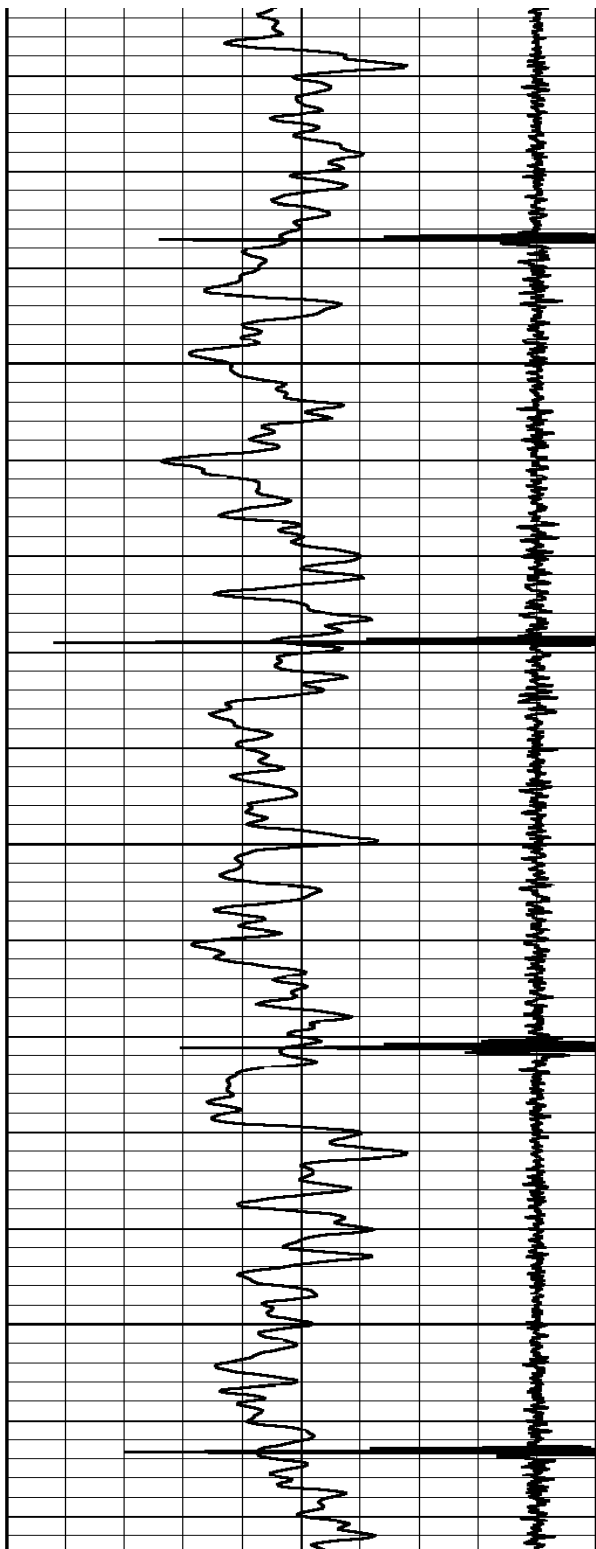
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92.6

93.0

93.4



2450

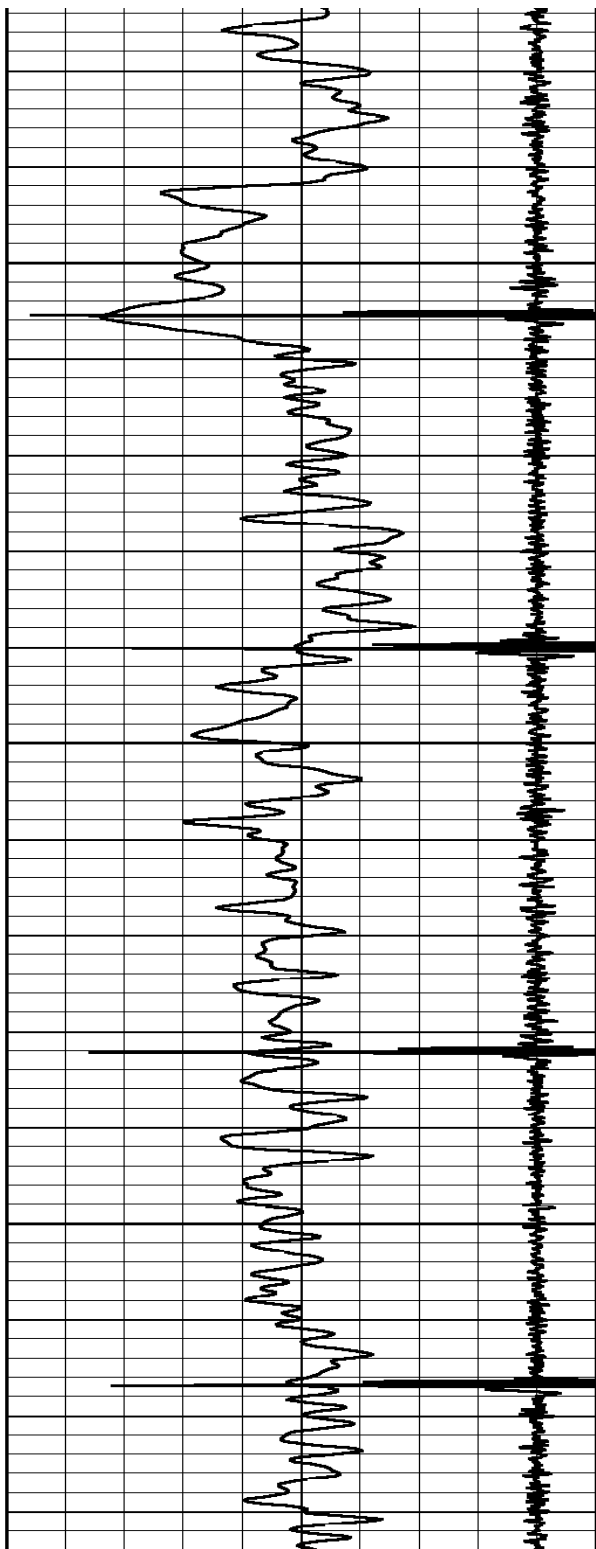
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2500

94.1

2550

94.8



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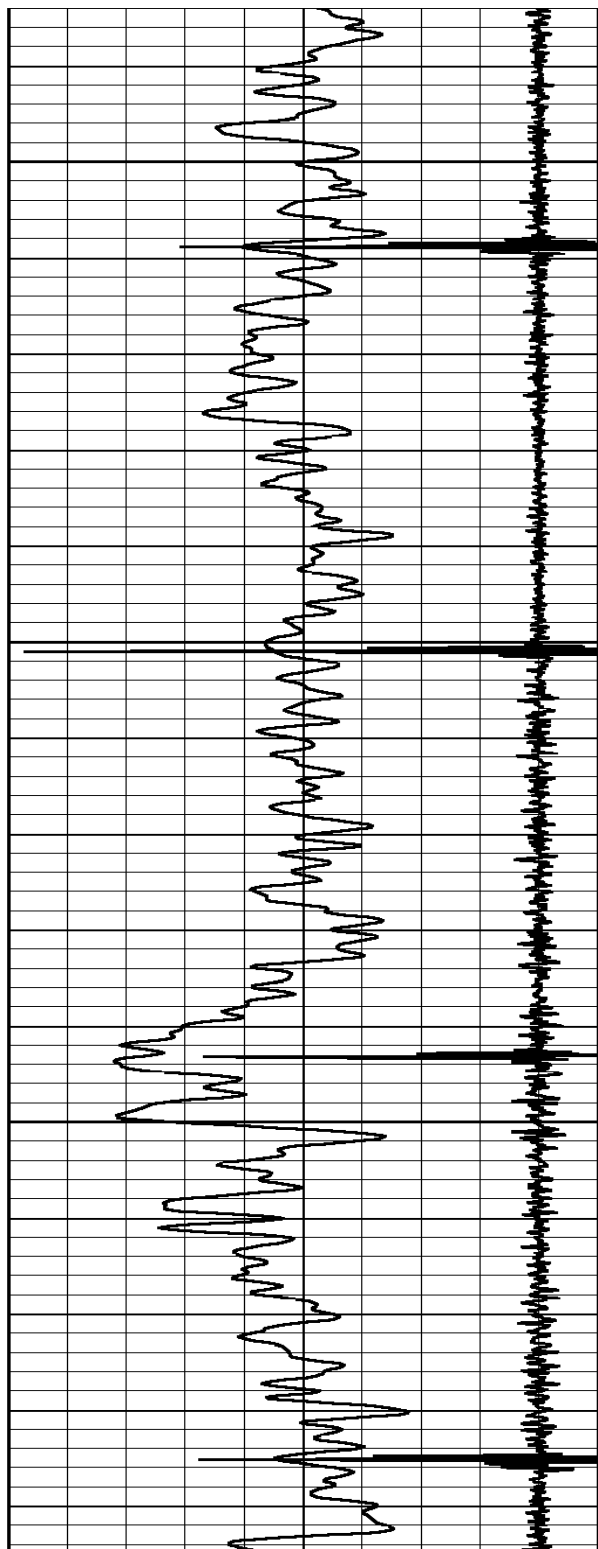
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2700

95.1

95.6

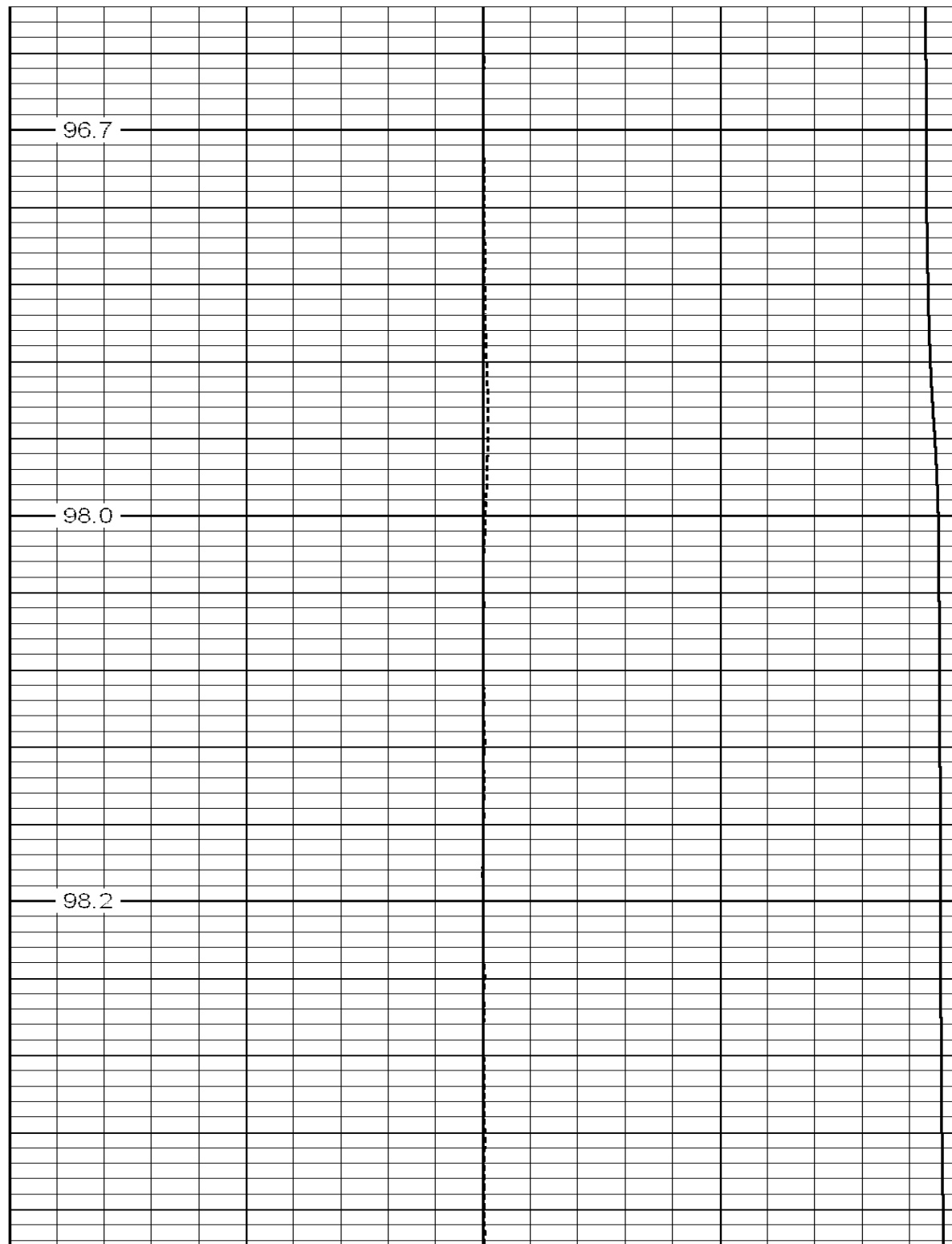
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2750

2800

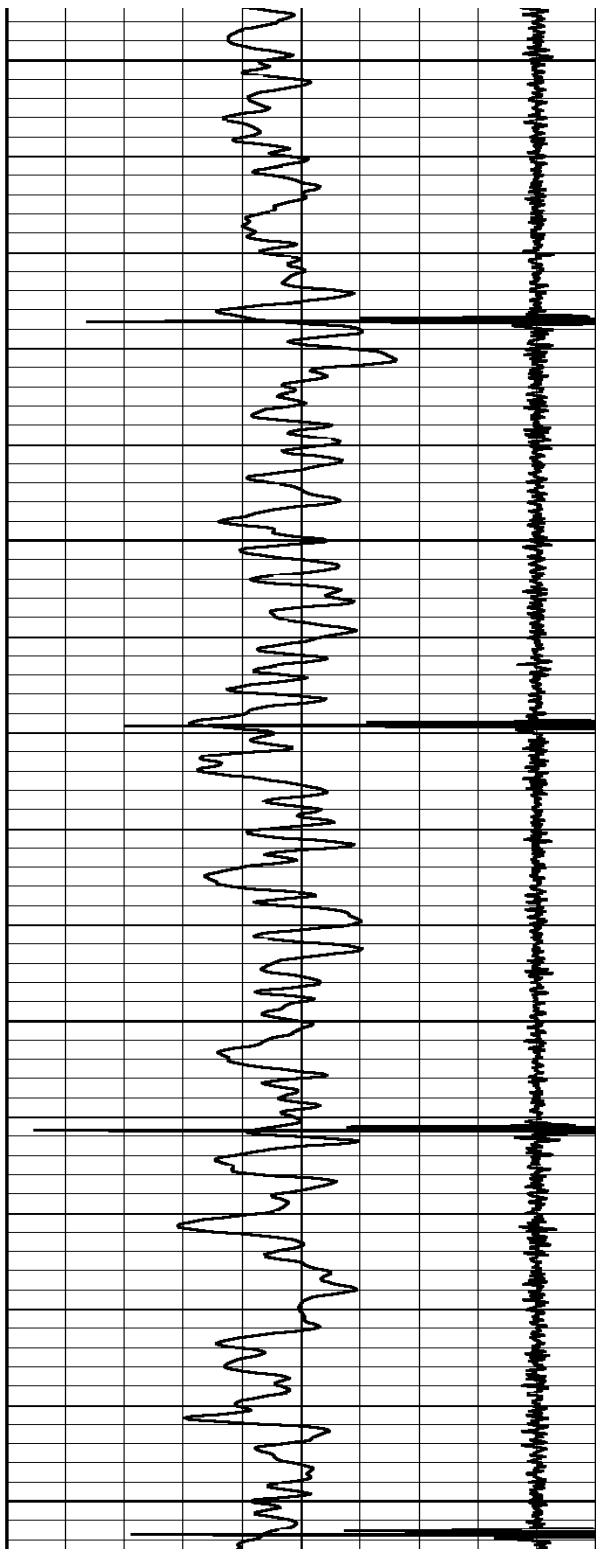
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96.7

98.0

98.2

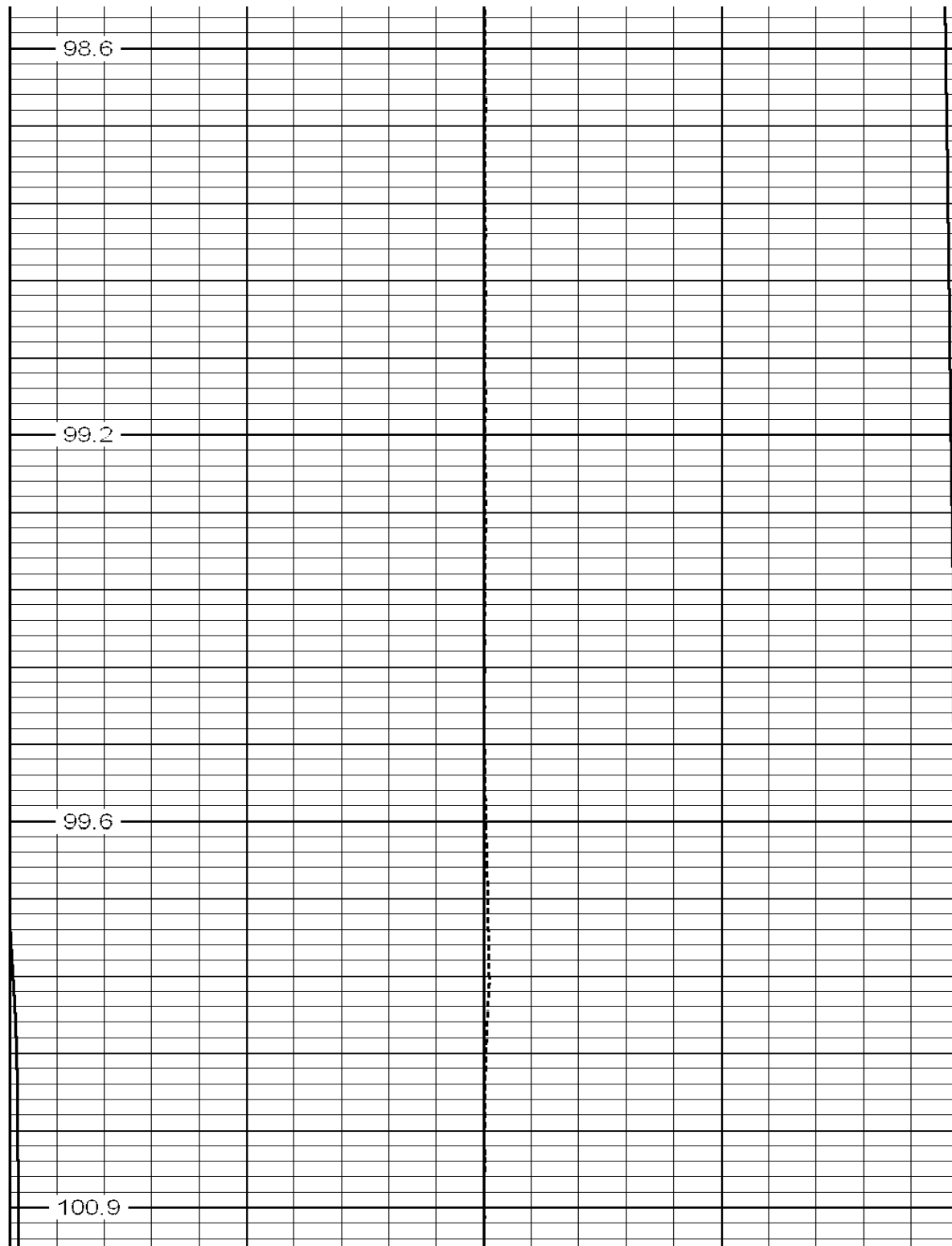


2900

2950

3000

3050

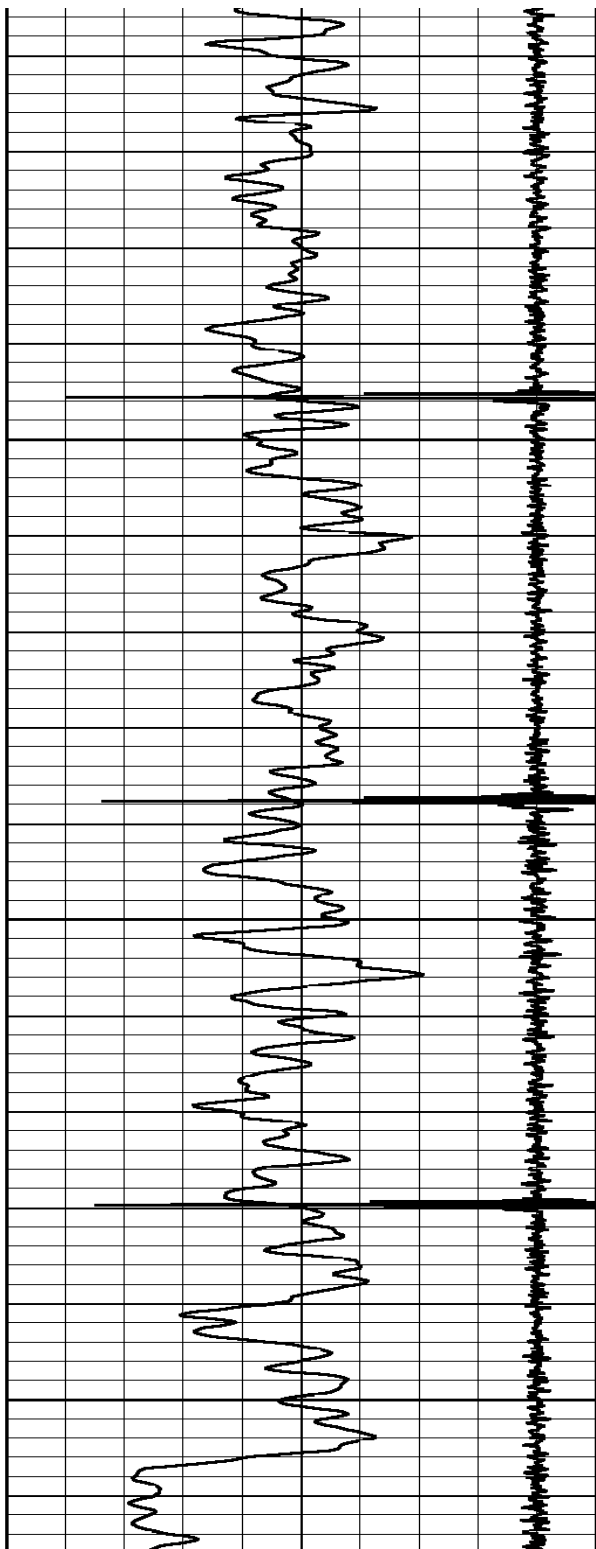


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99.2

99.6

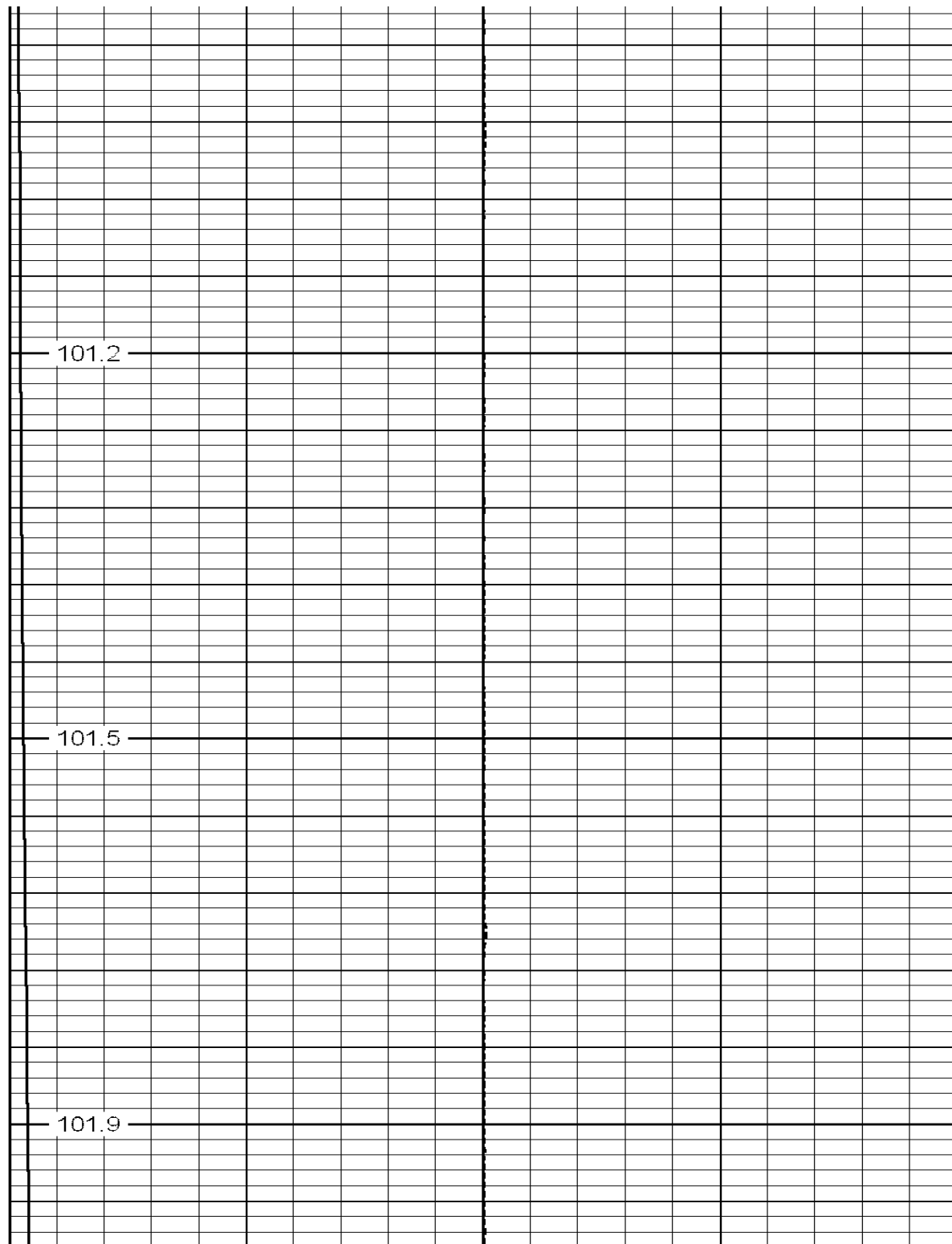
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3100

3150

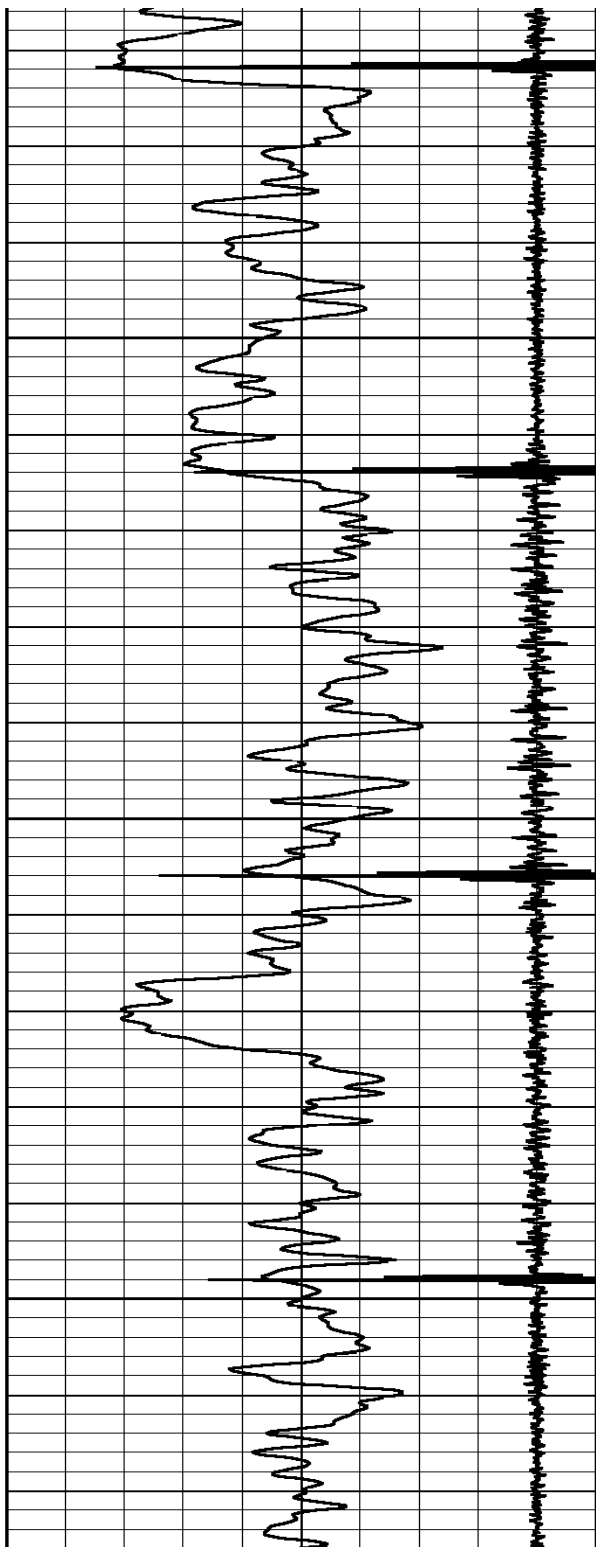
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101.2

101.5

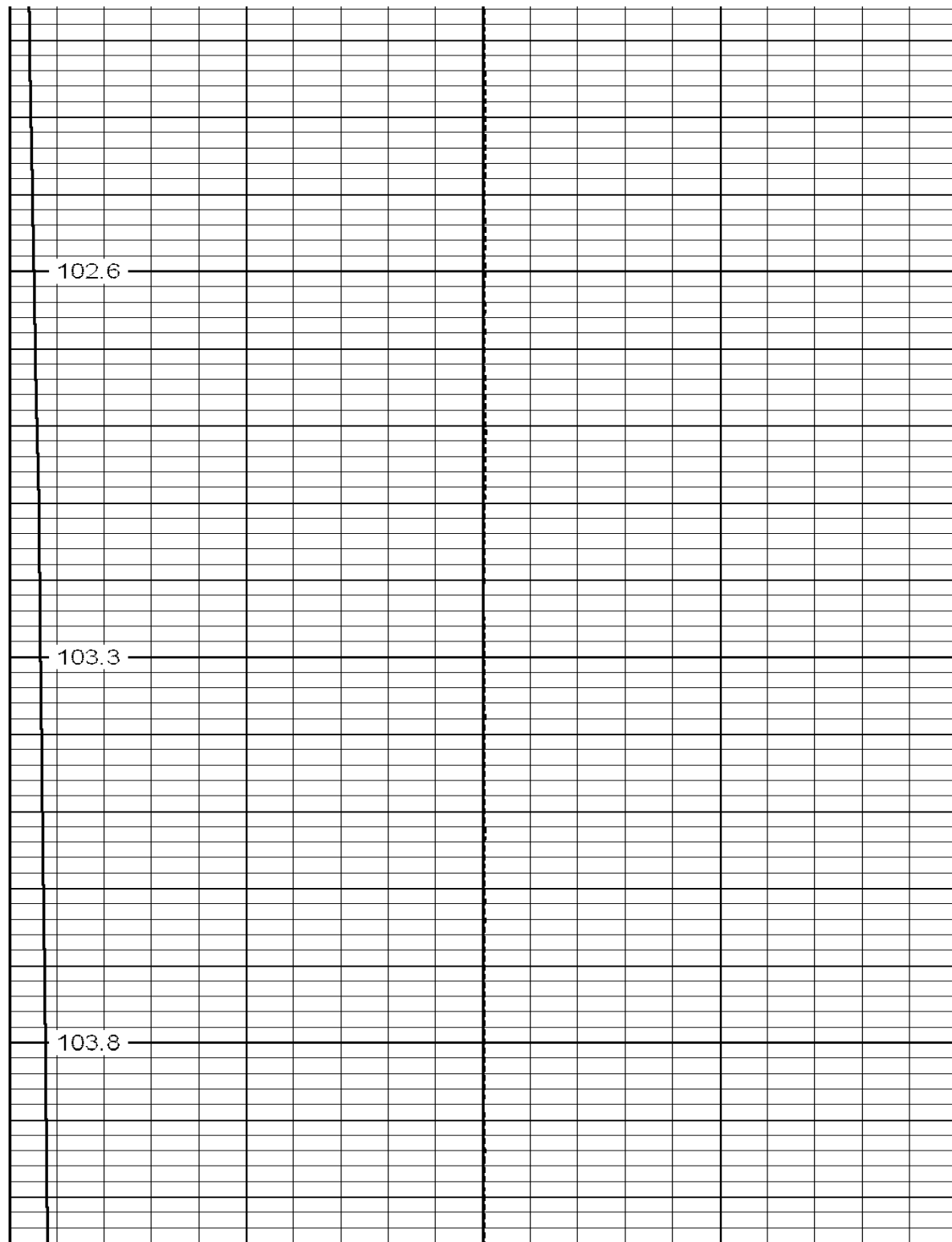
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3250

3300

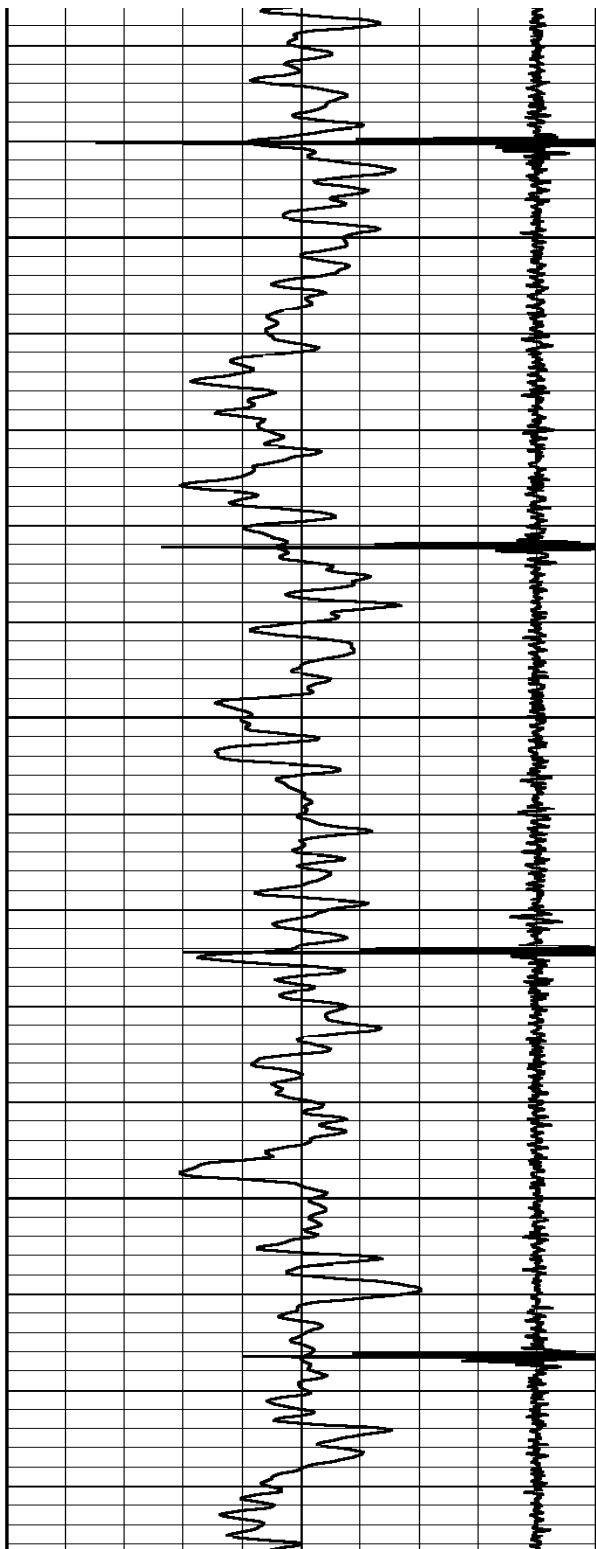
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102.6

103.3

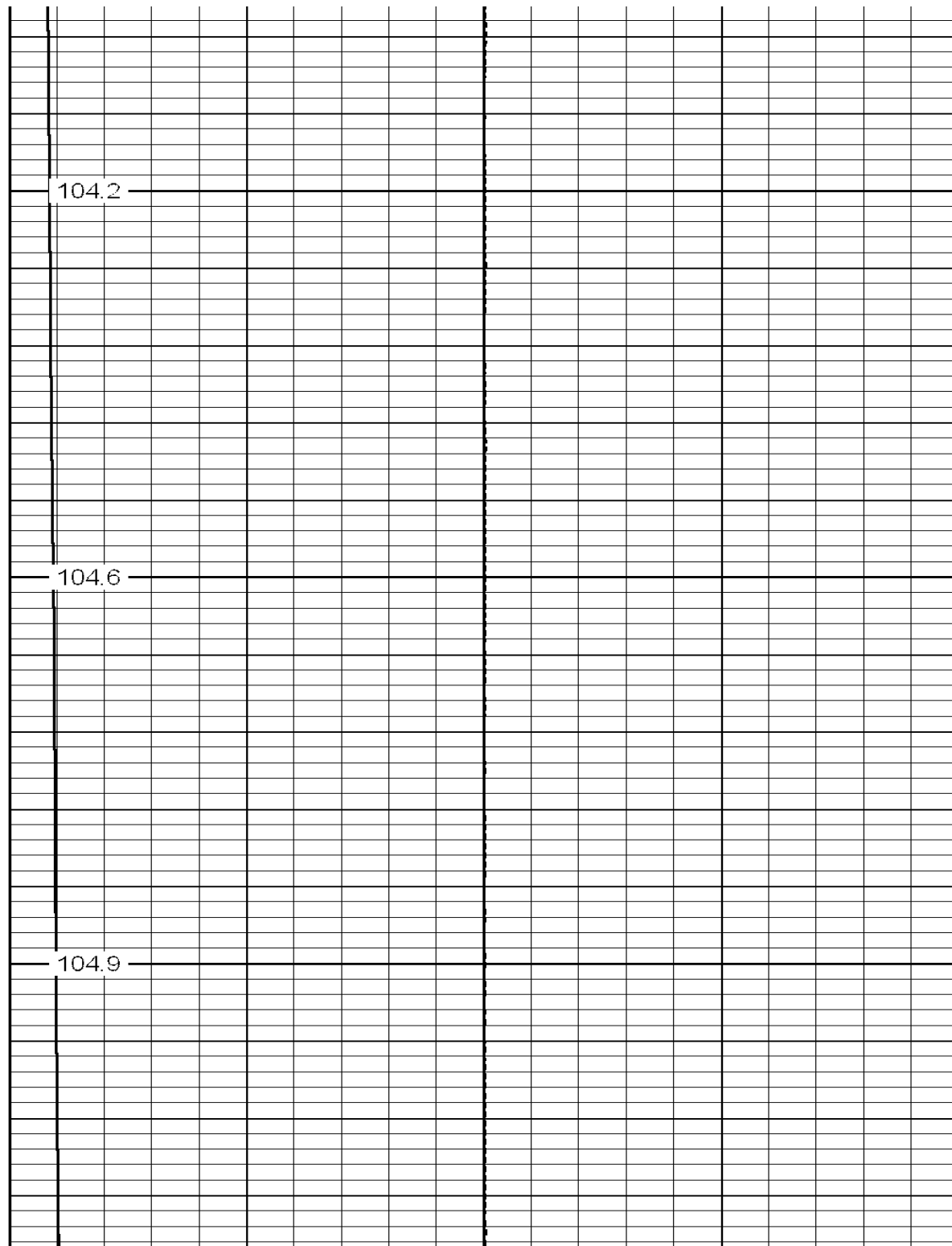
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3400

3450

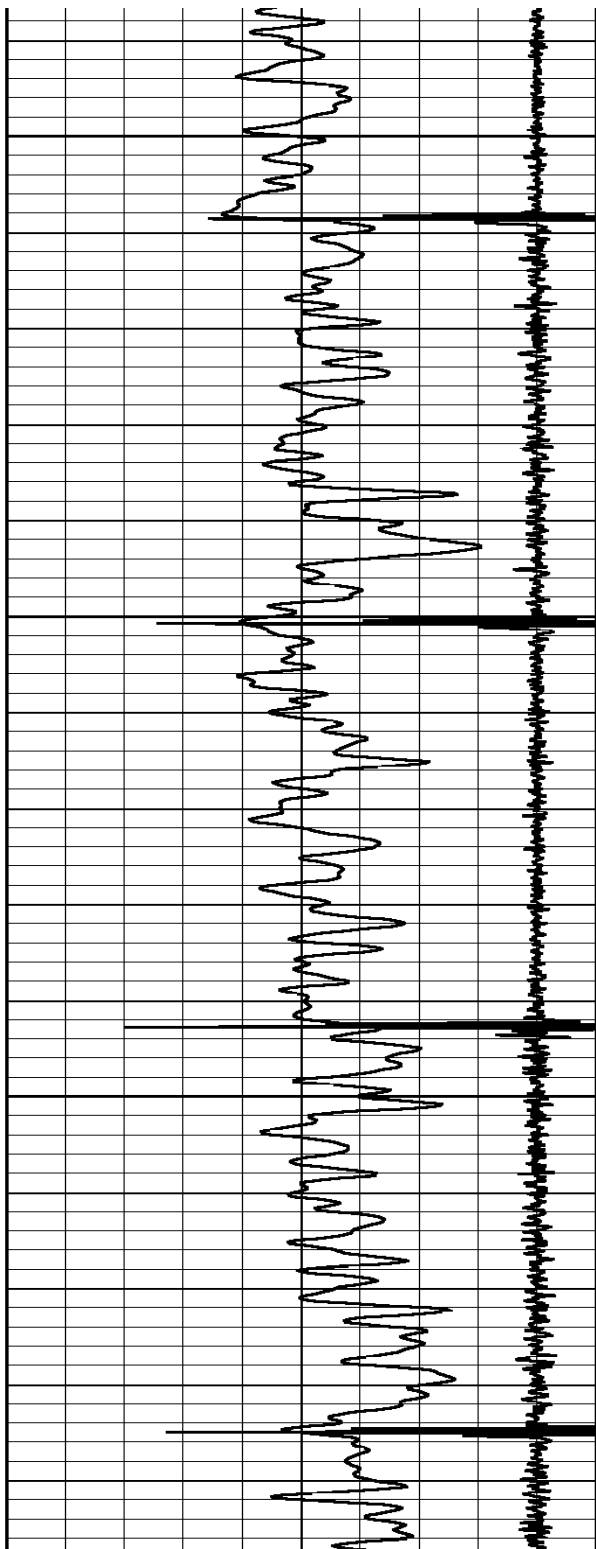
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104.2

104.6

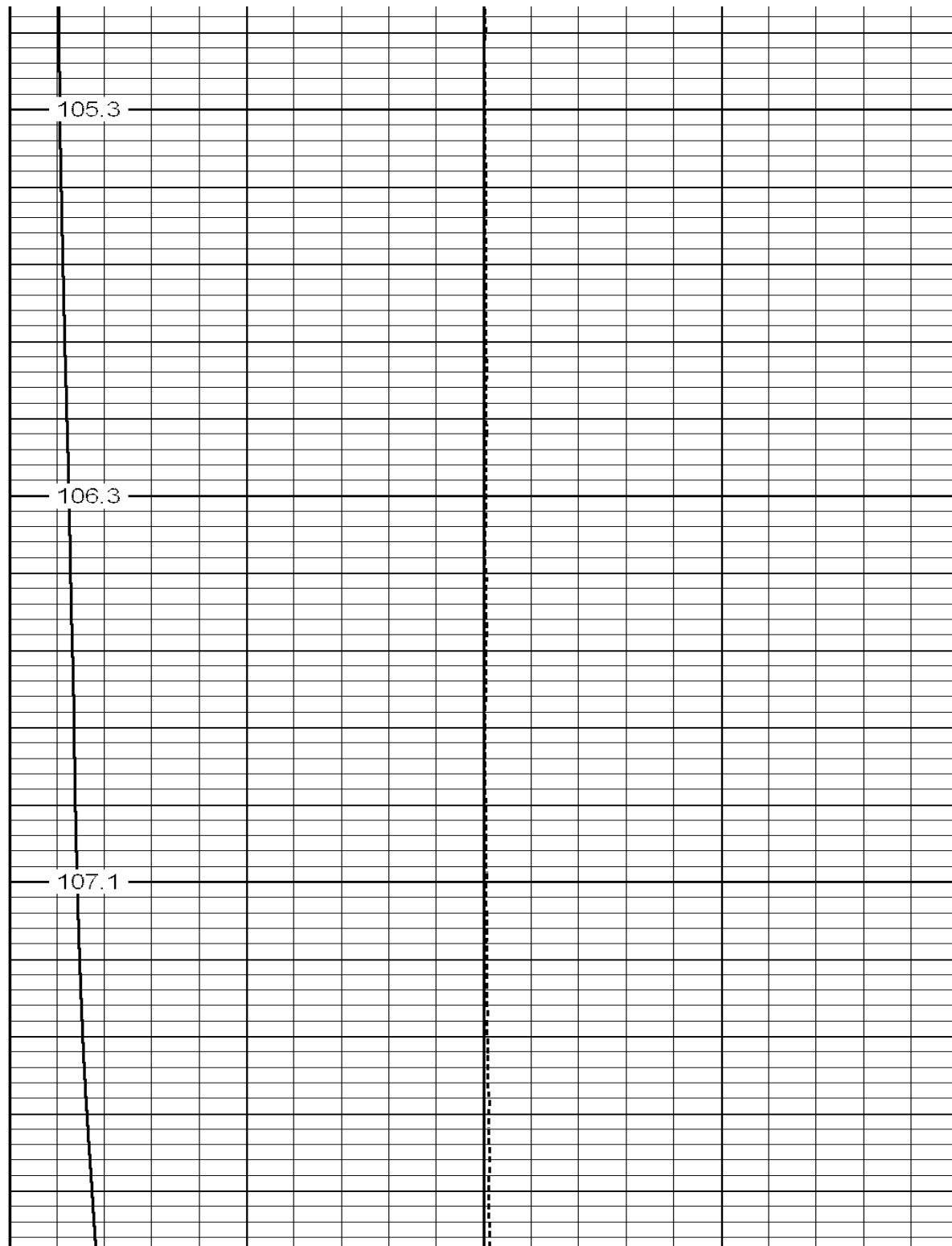
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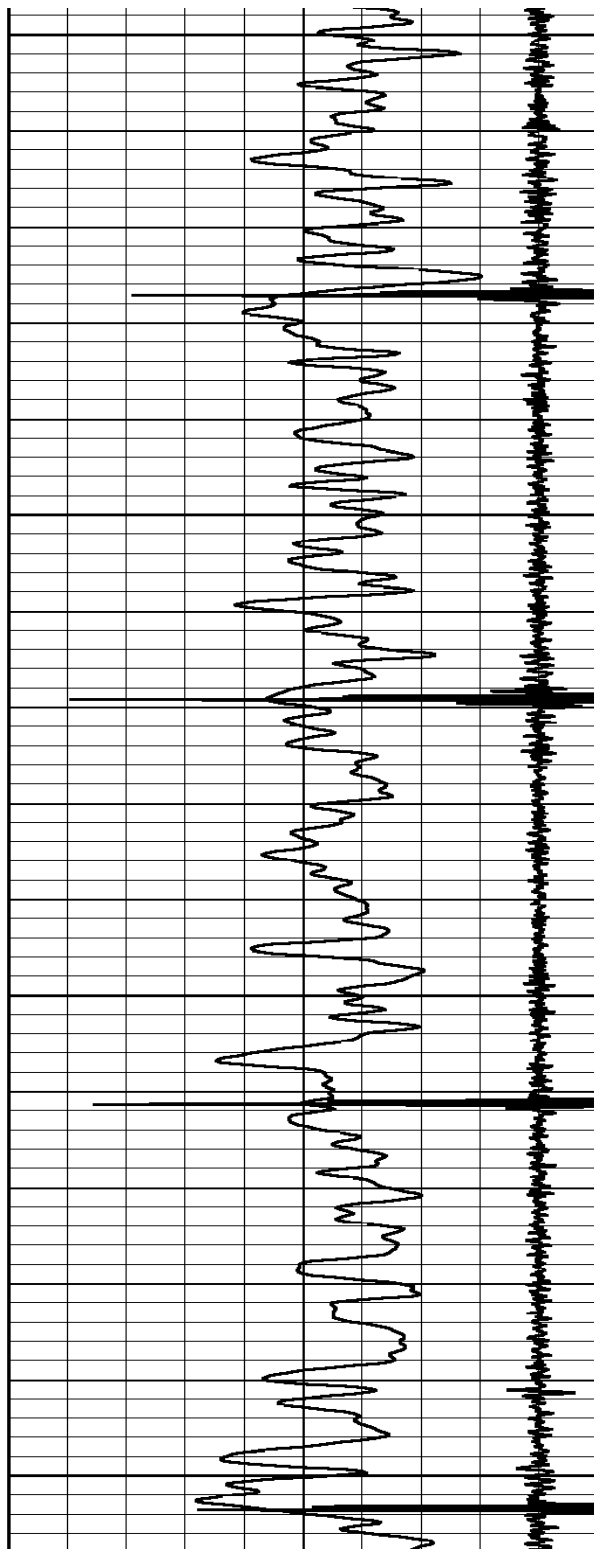


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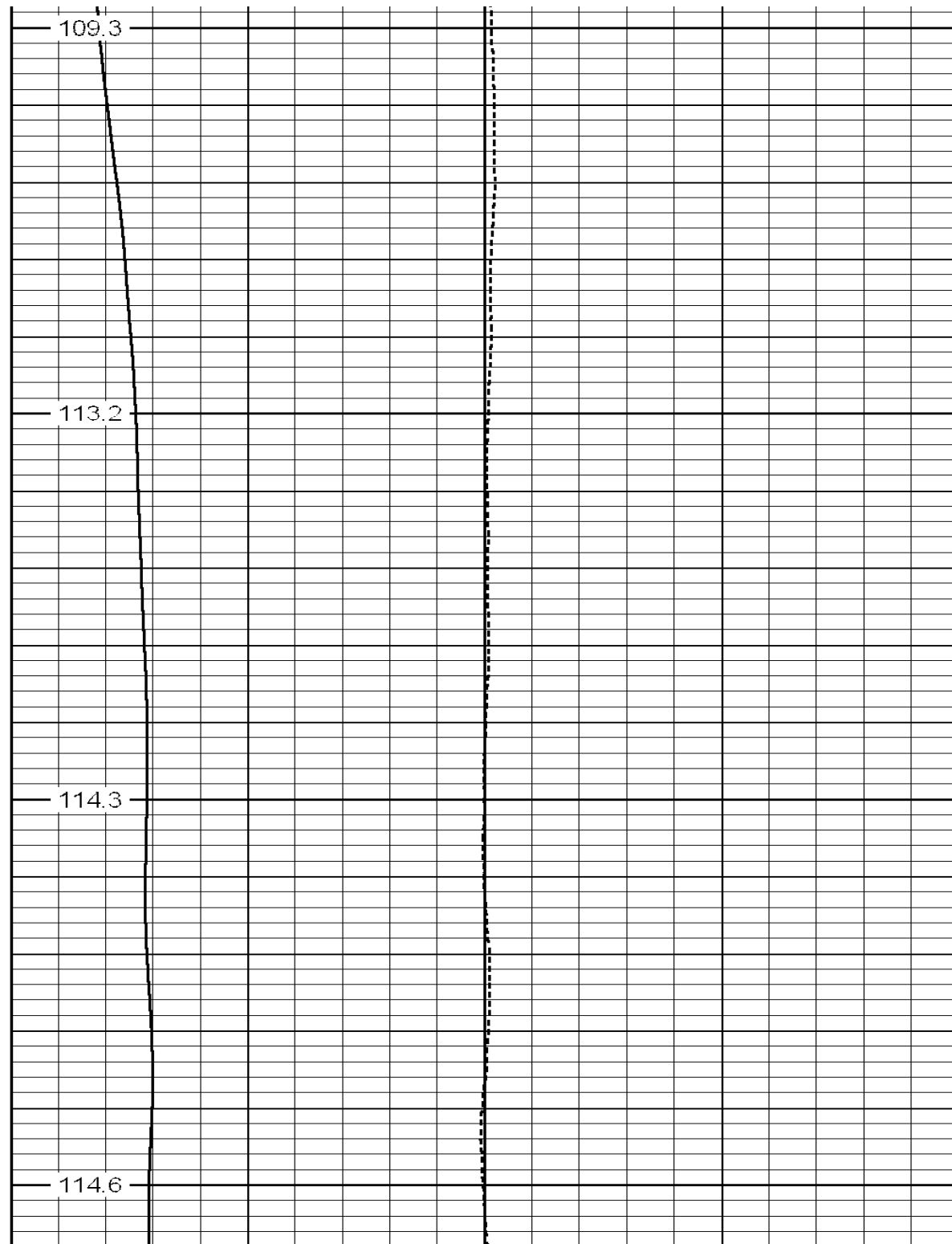


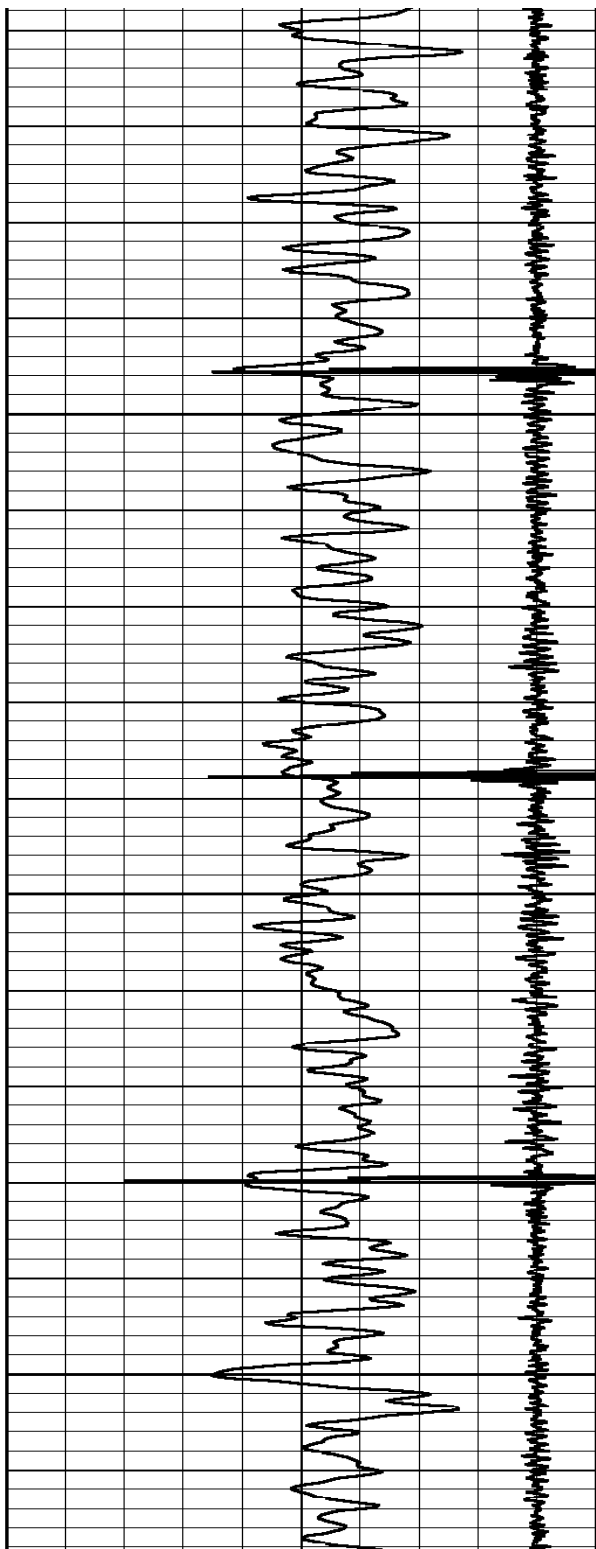
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3800

3850

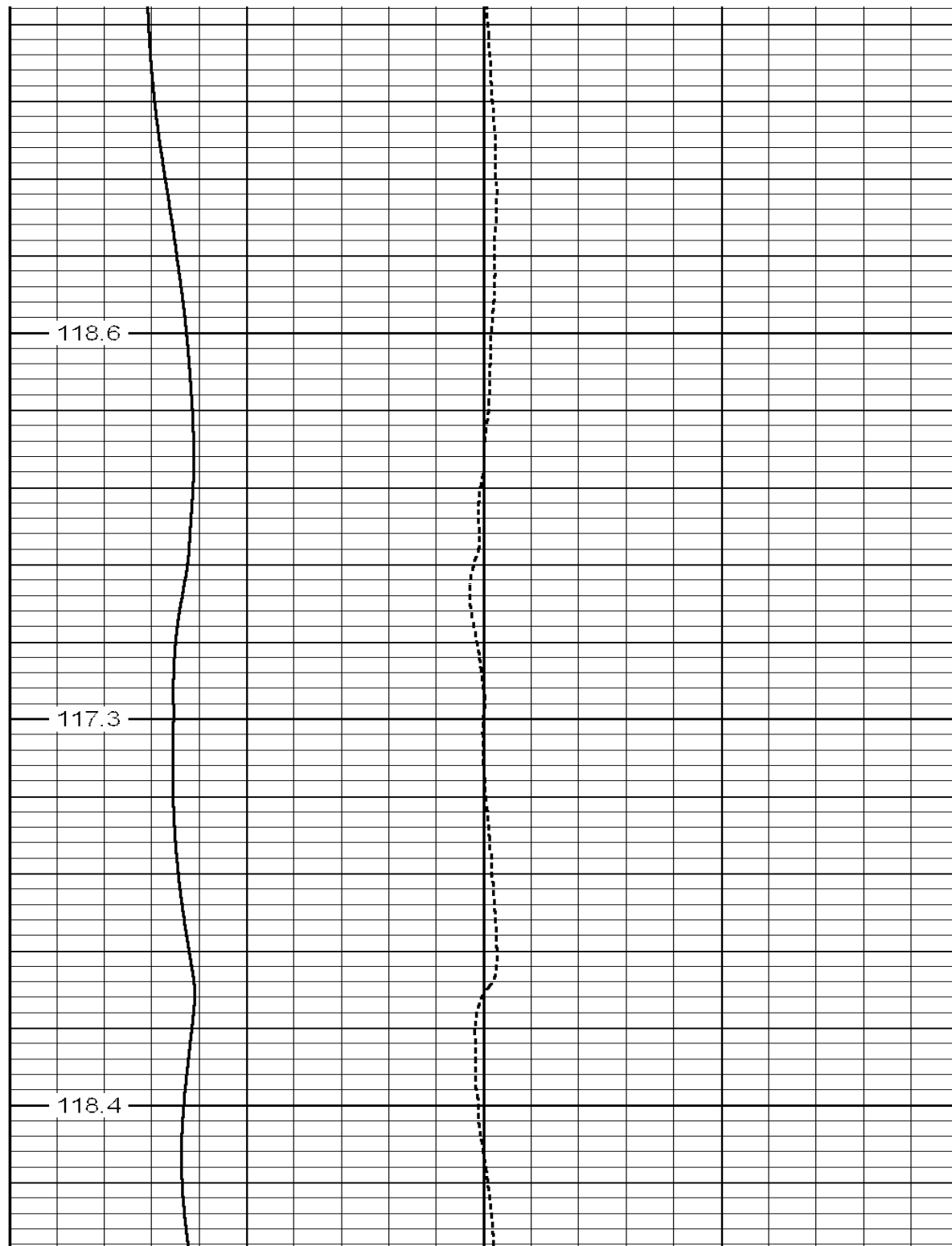




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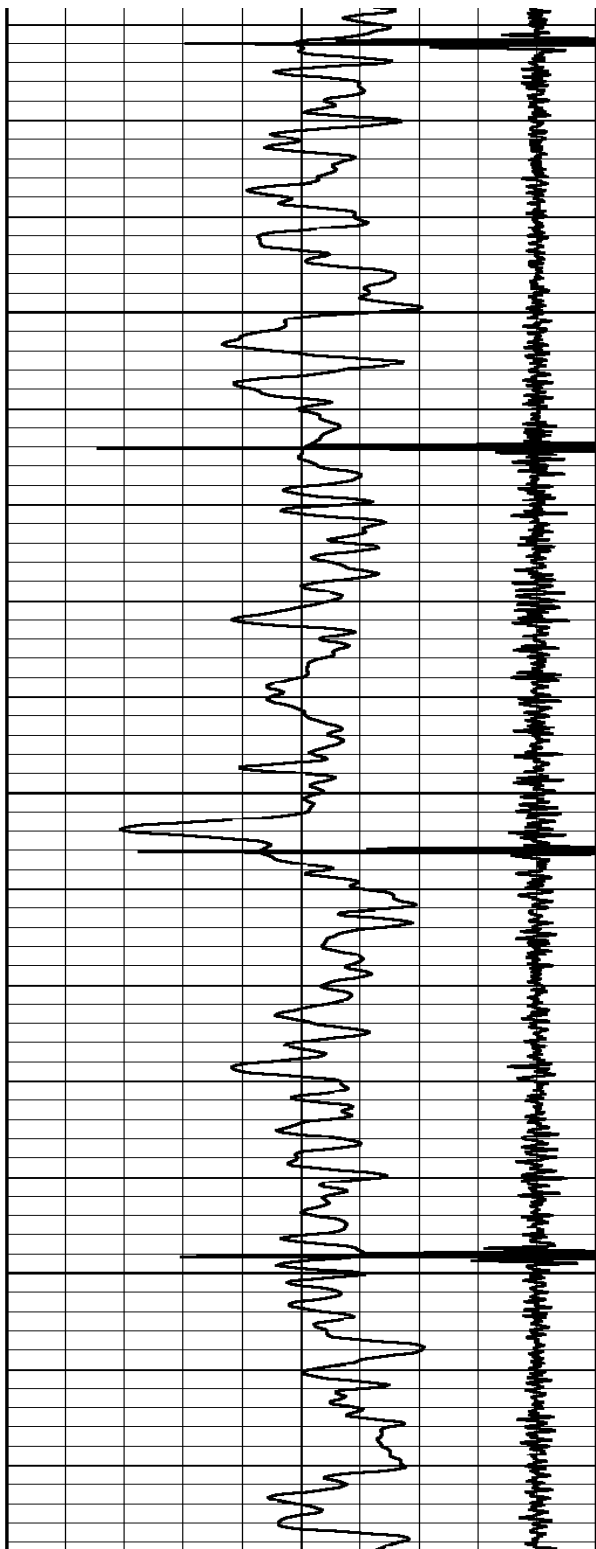
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118.6

117.3

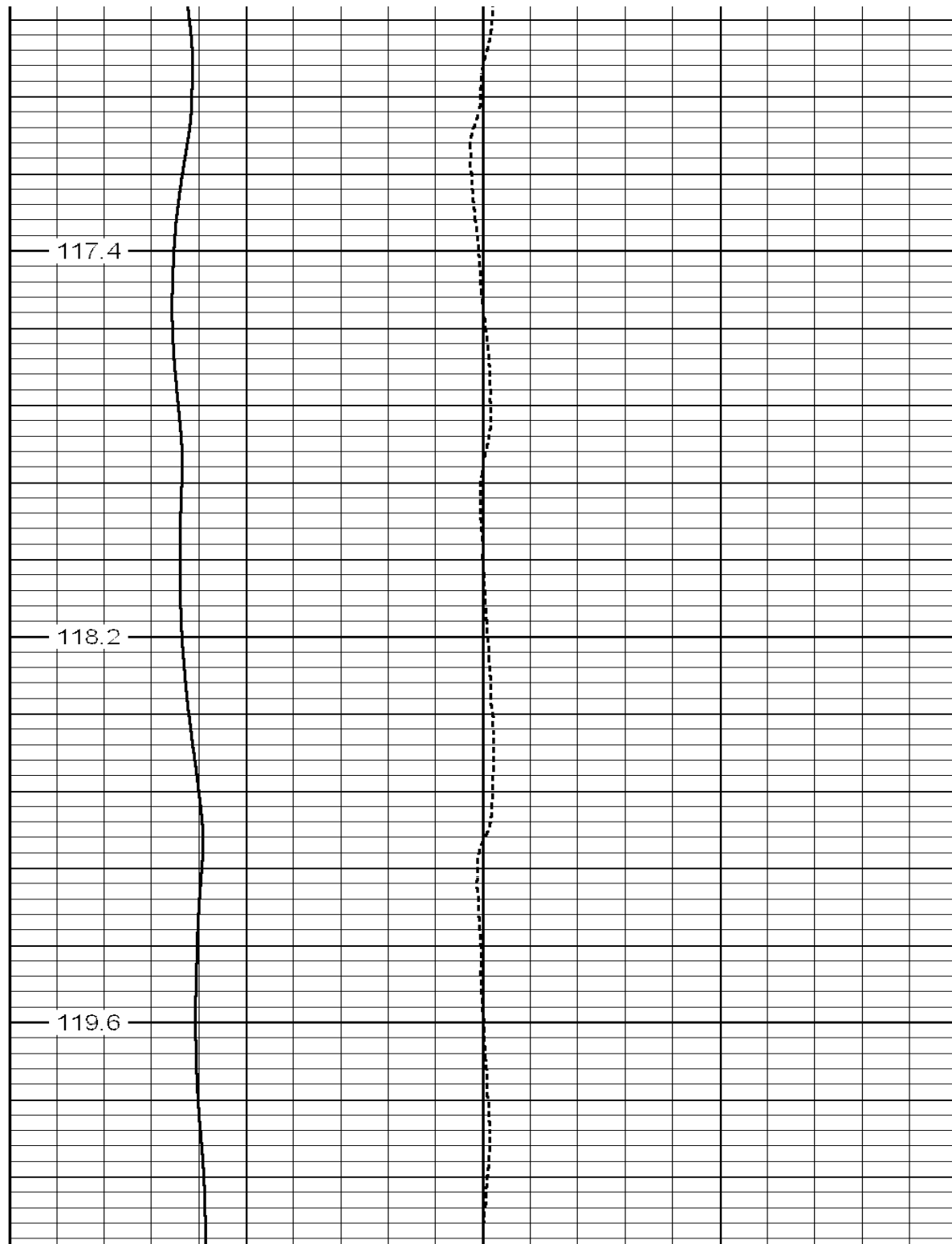
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4050

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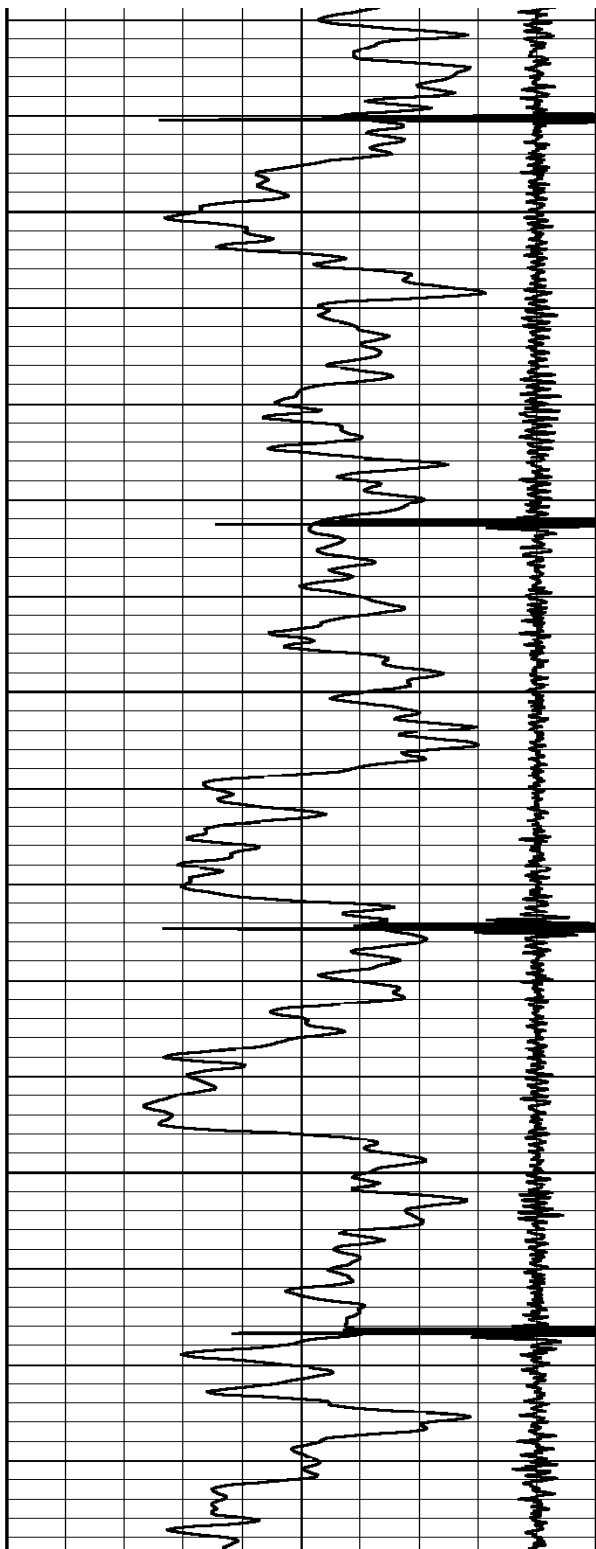
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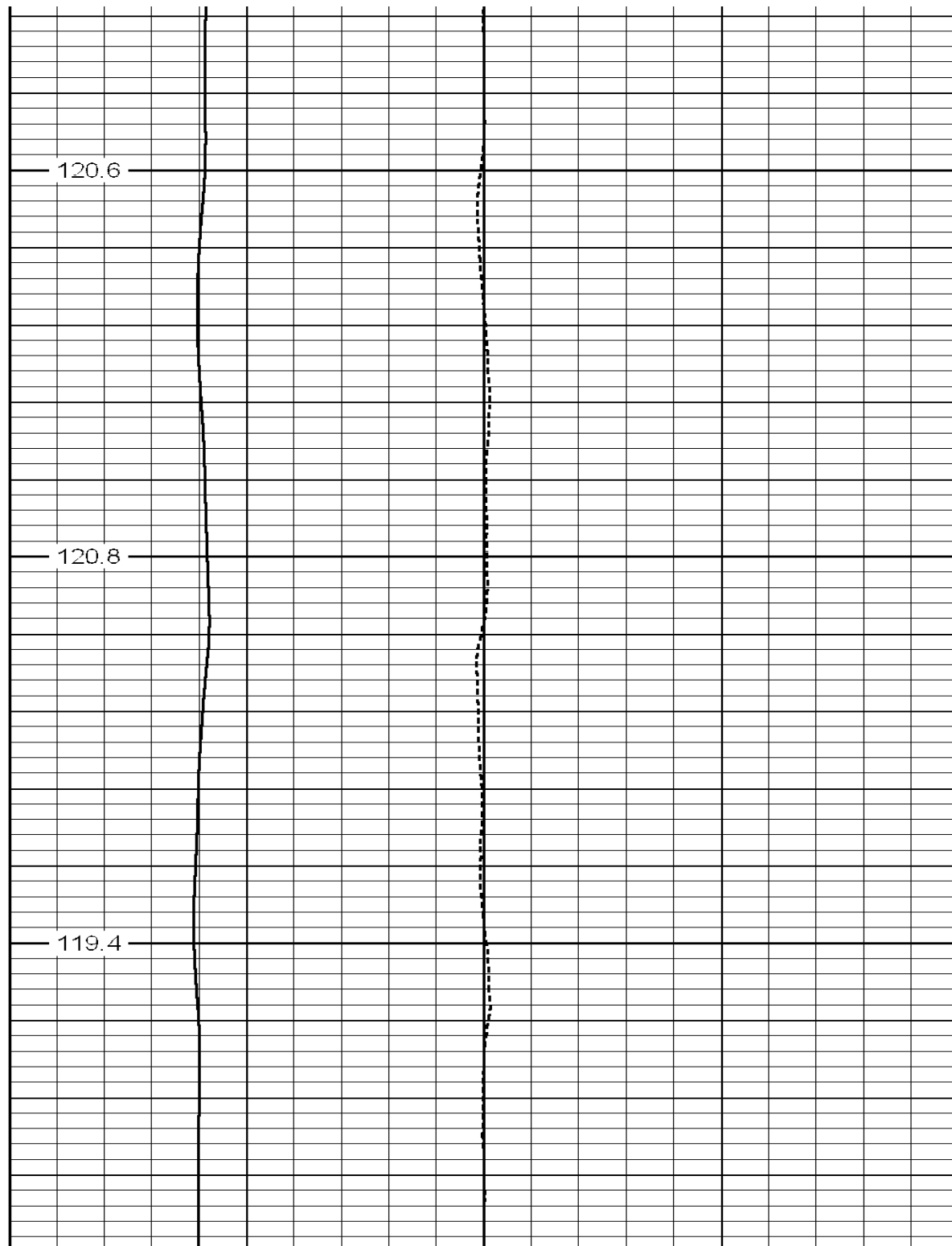
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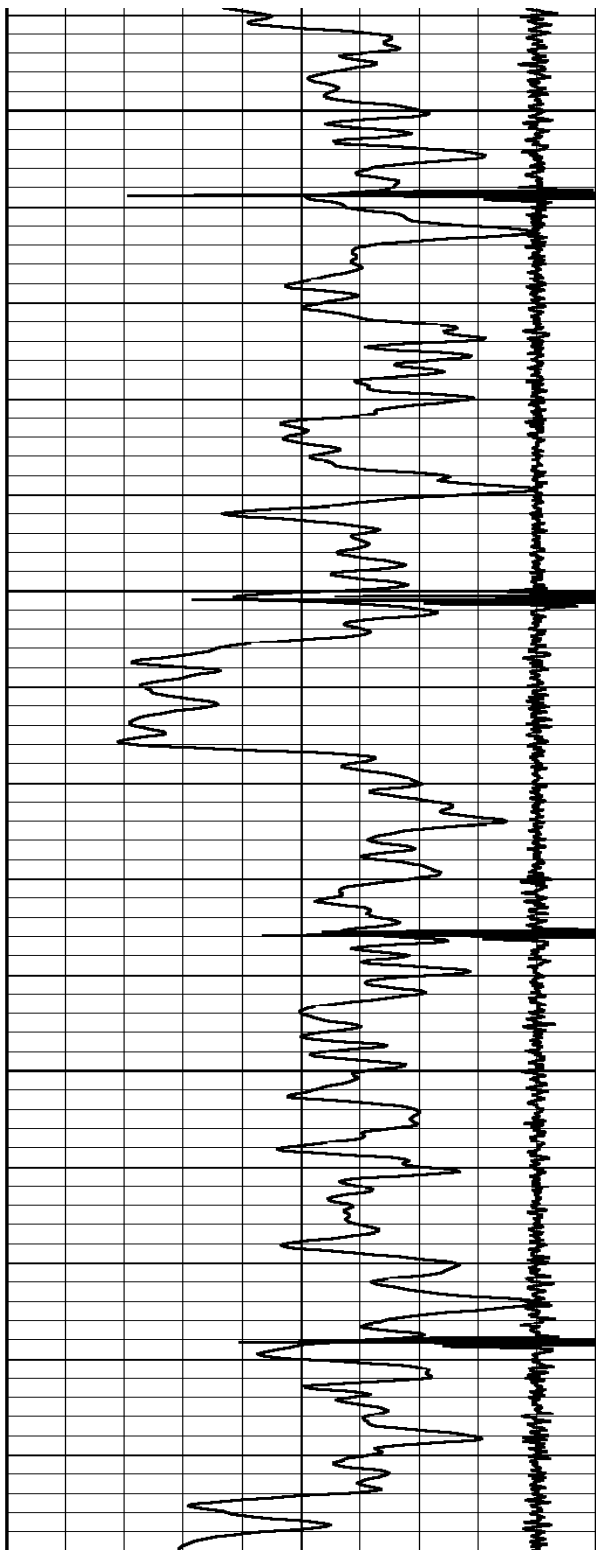
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120.8

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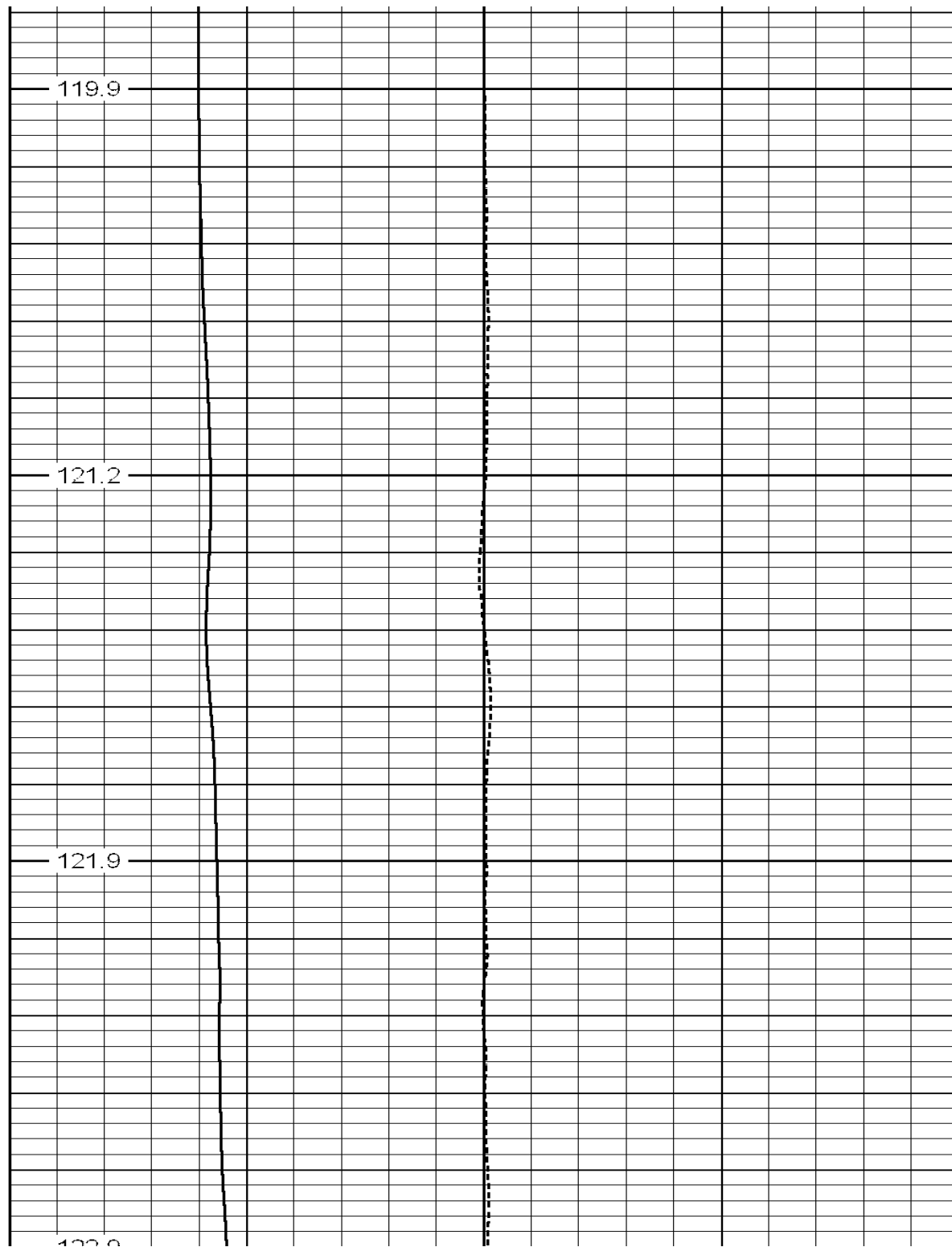


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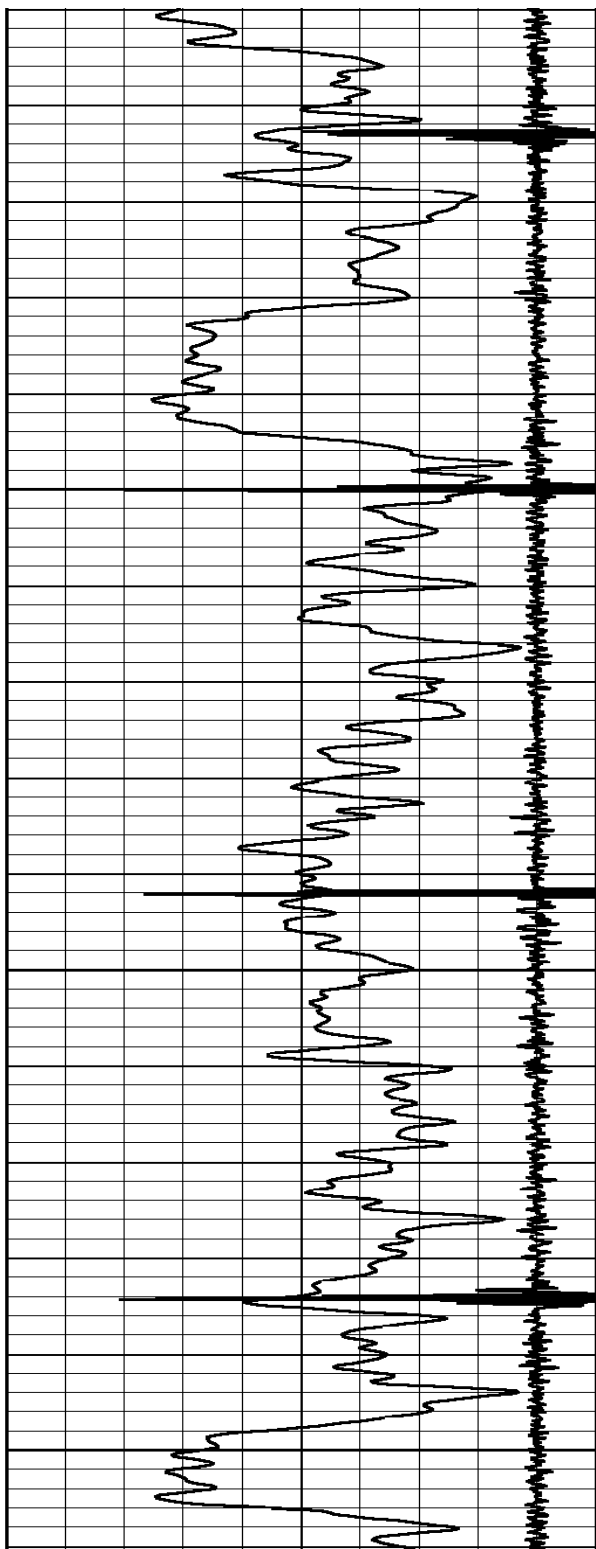


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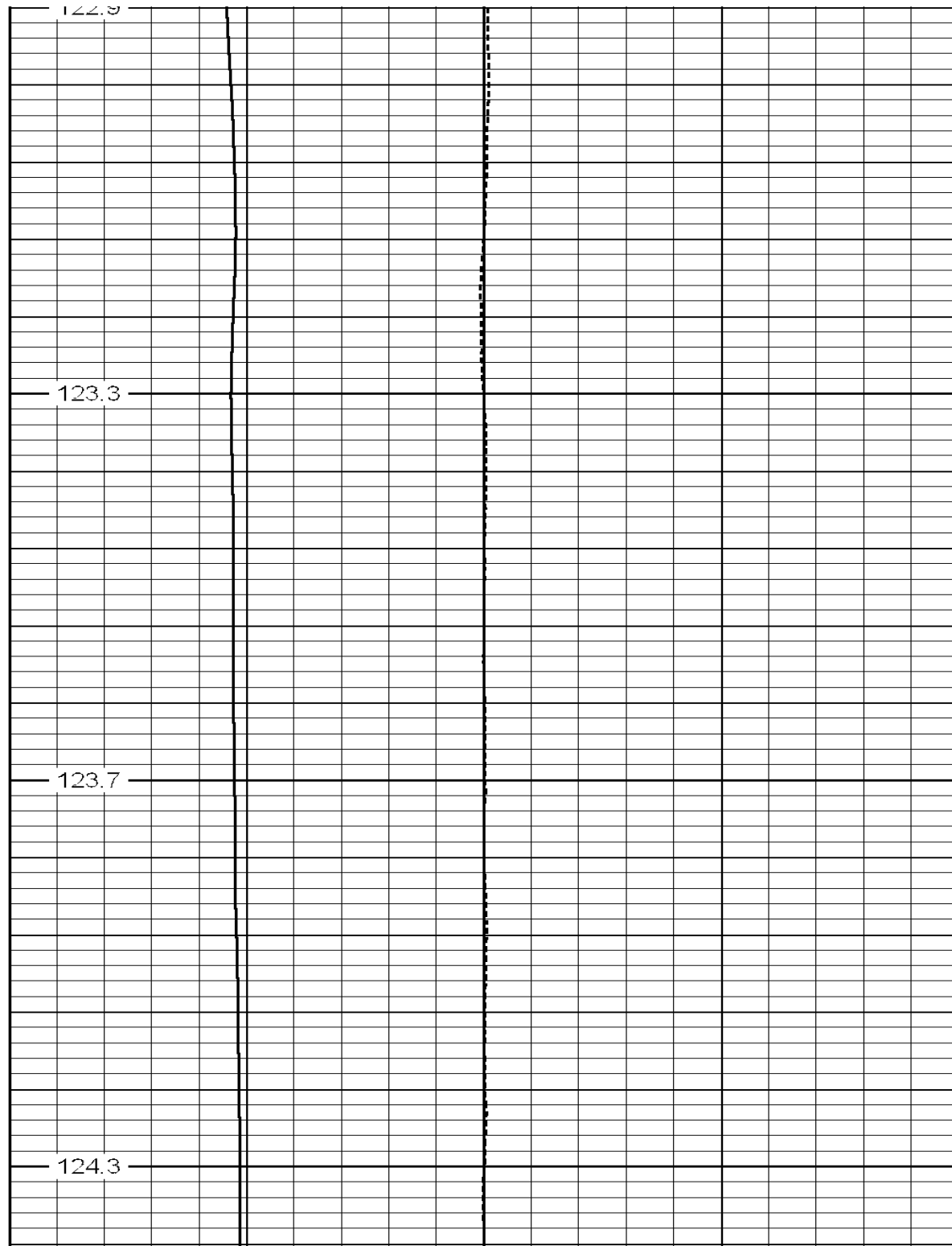


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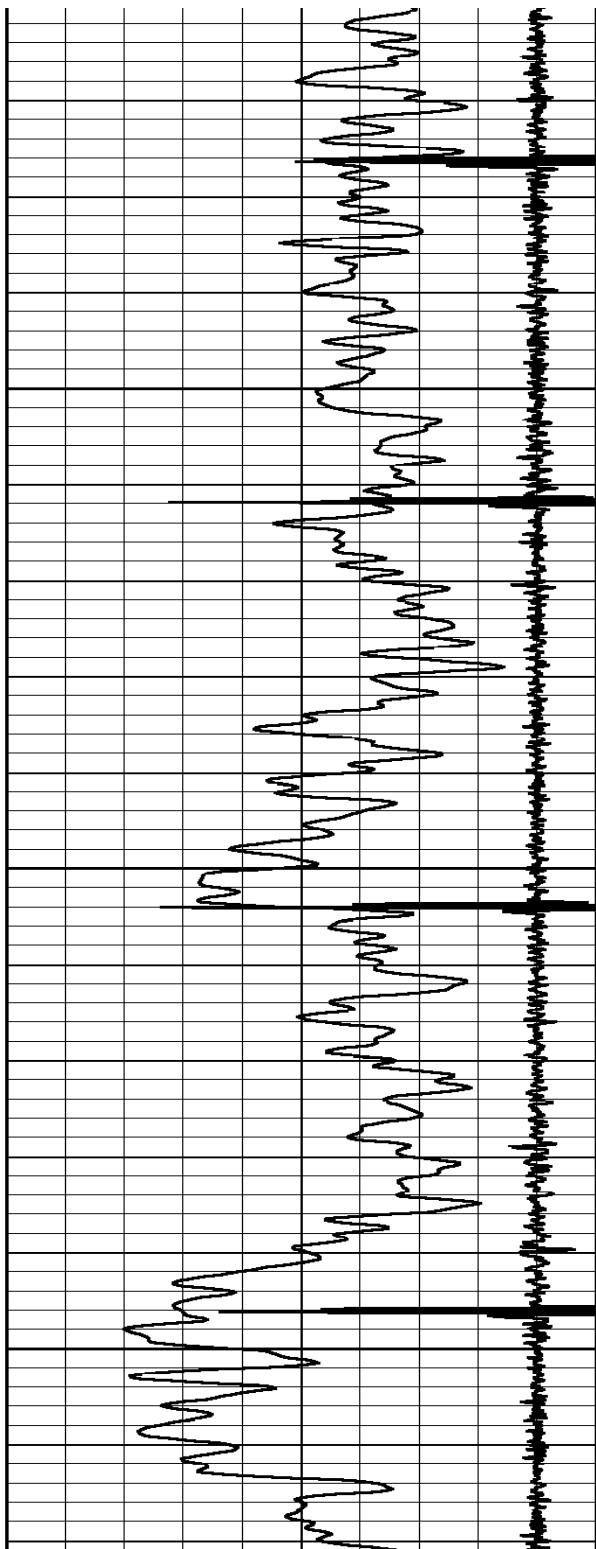


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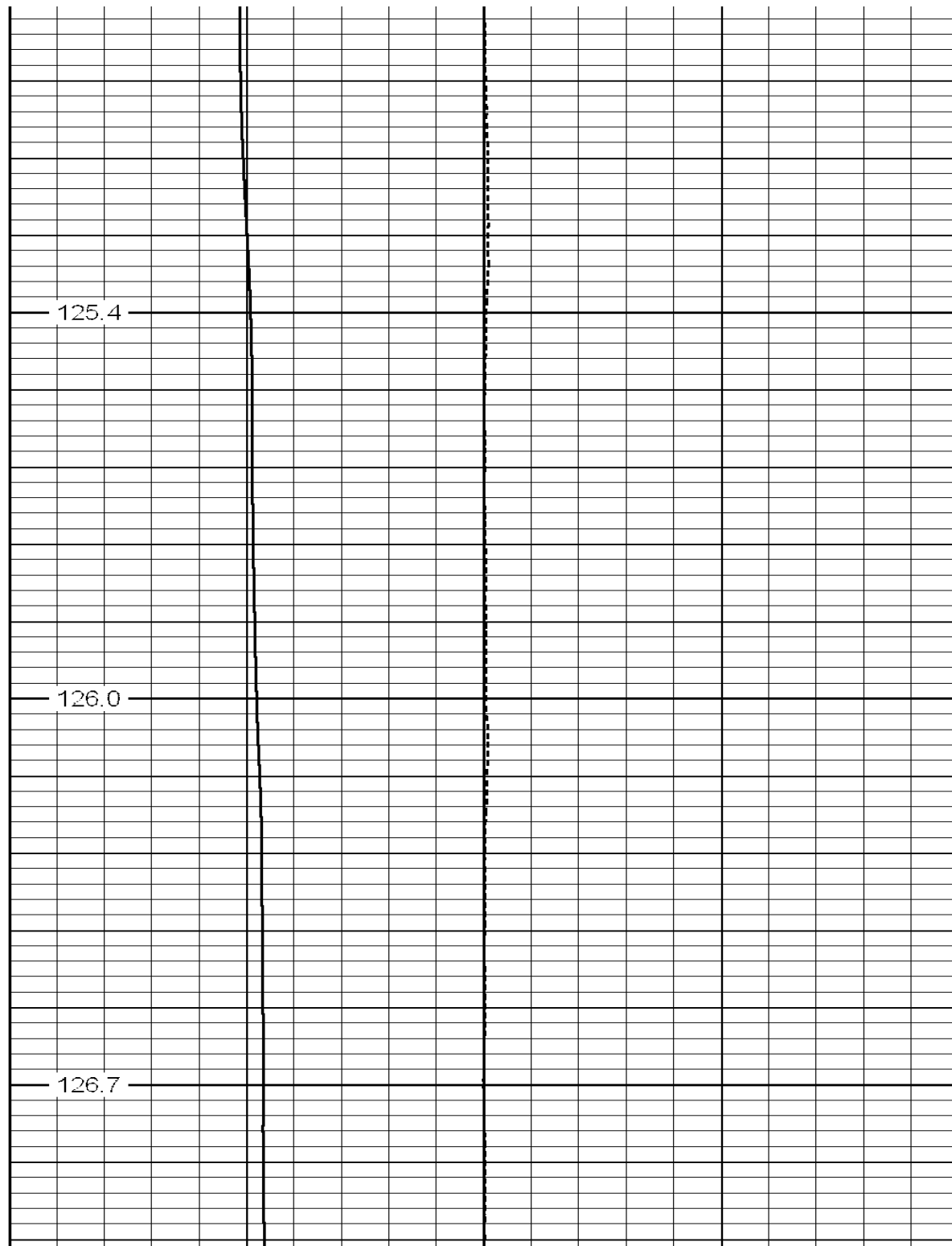
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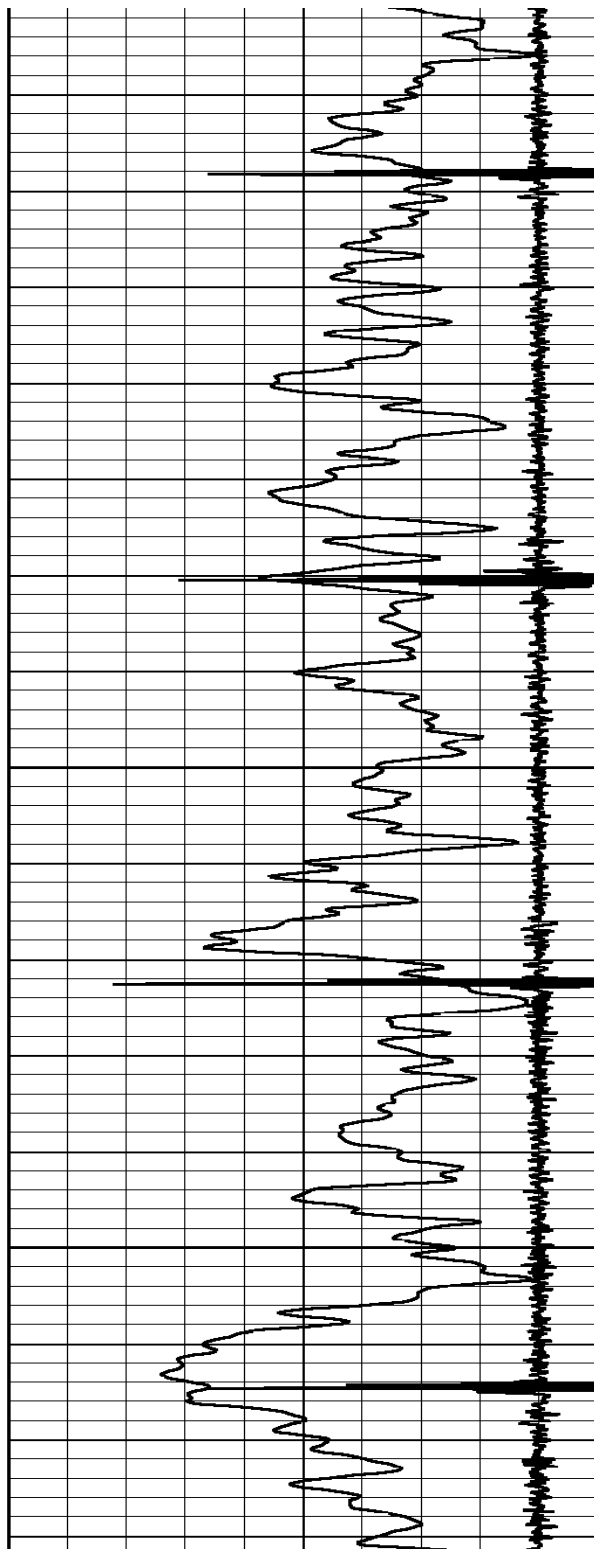


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4750

4800





4850

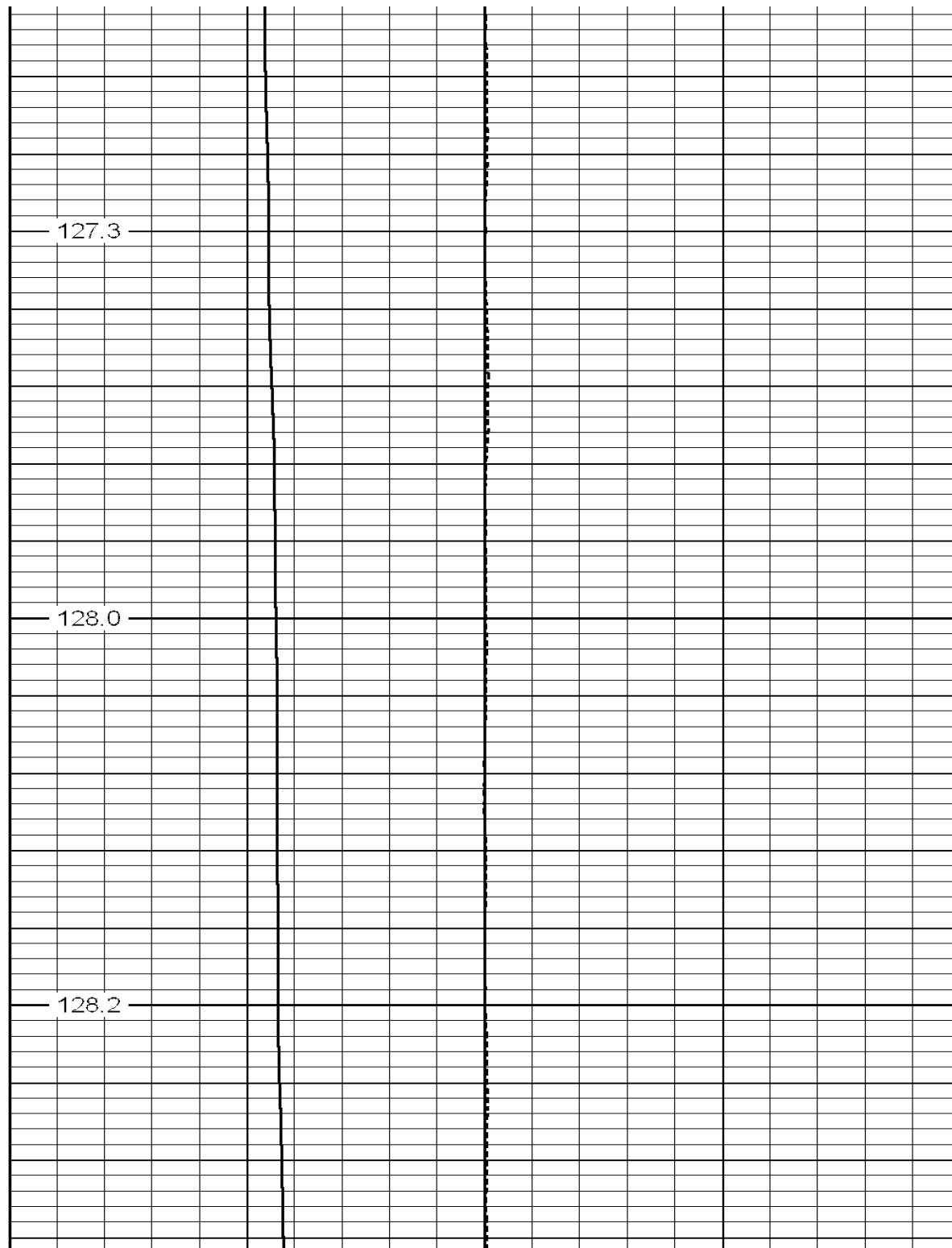
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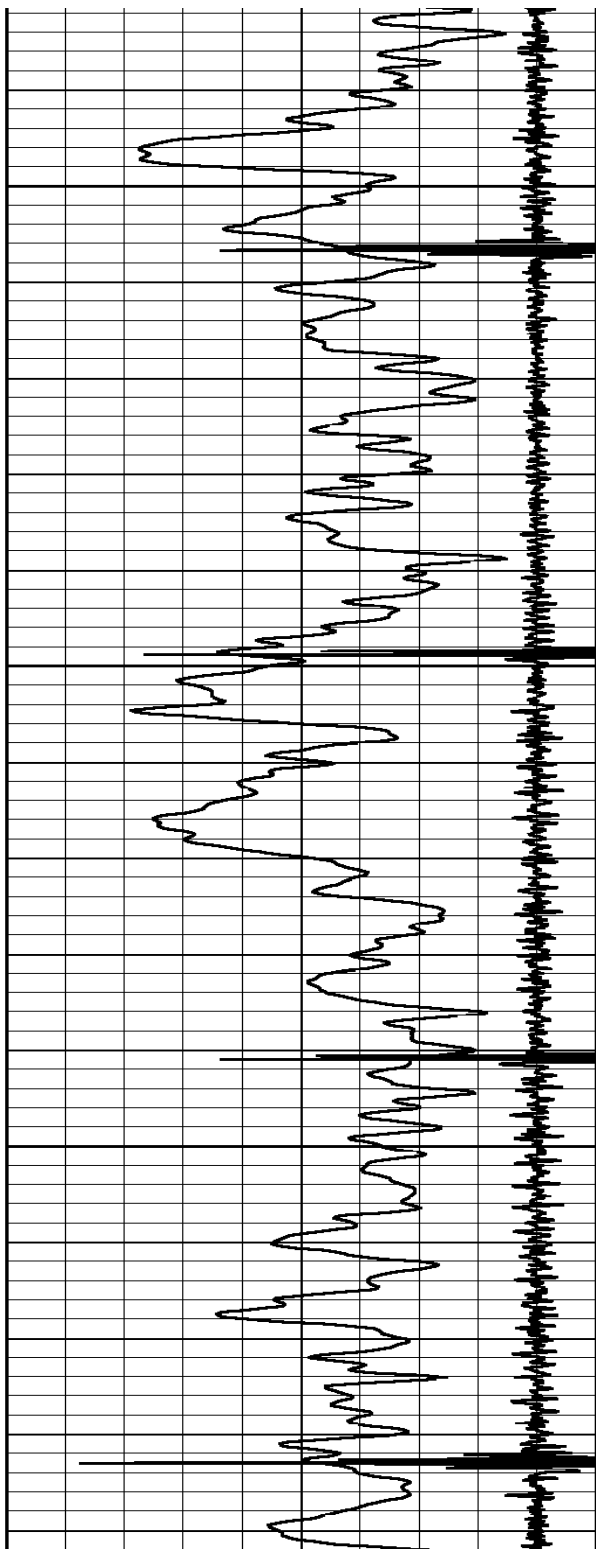
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128.2

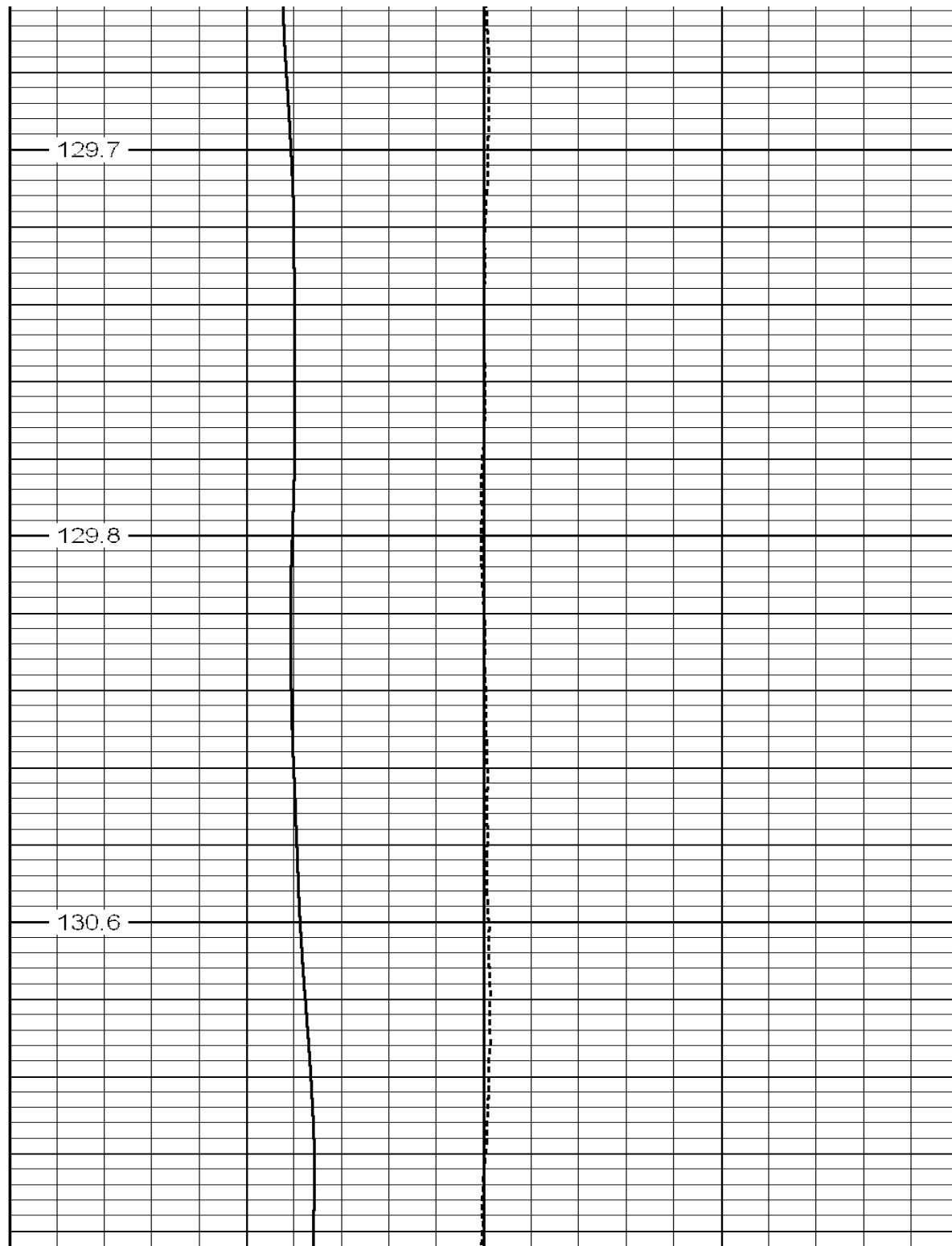




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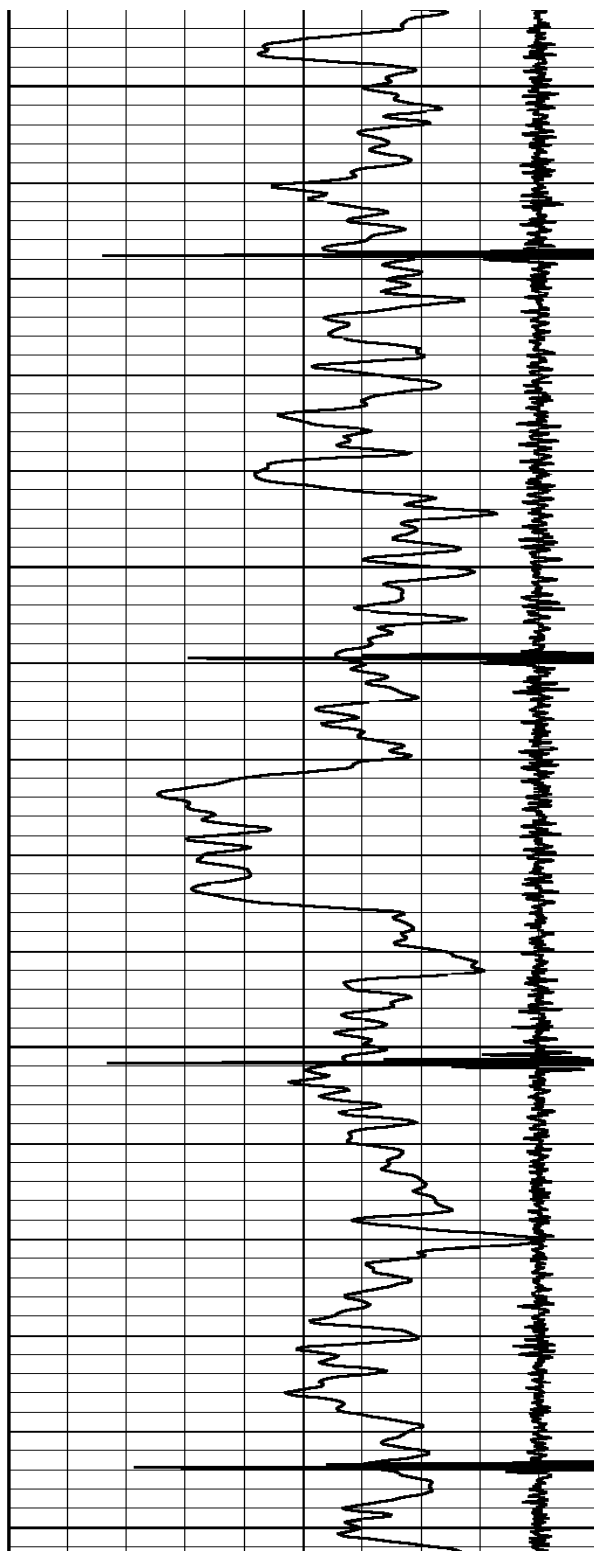
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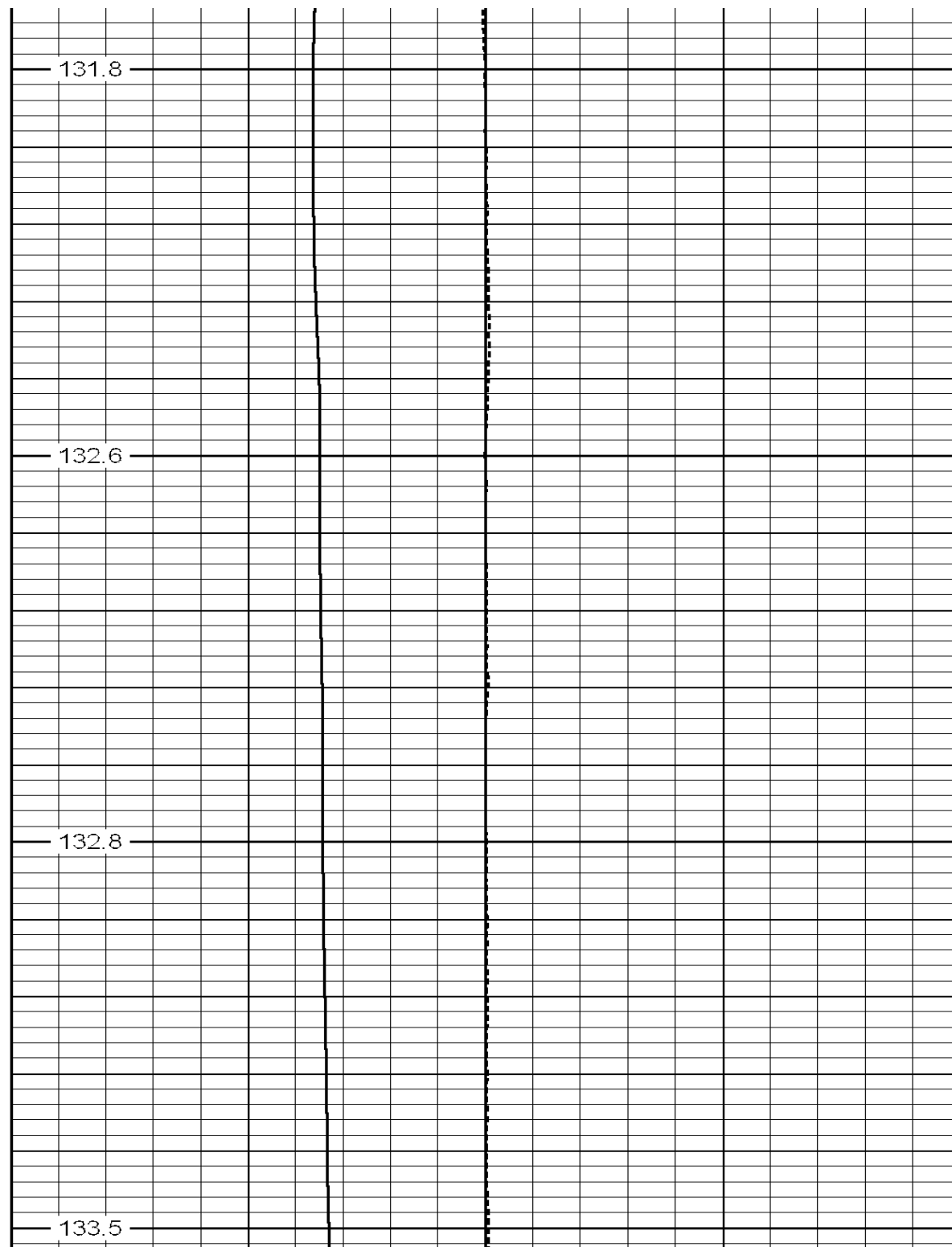


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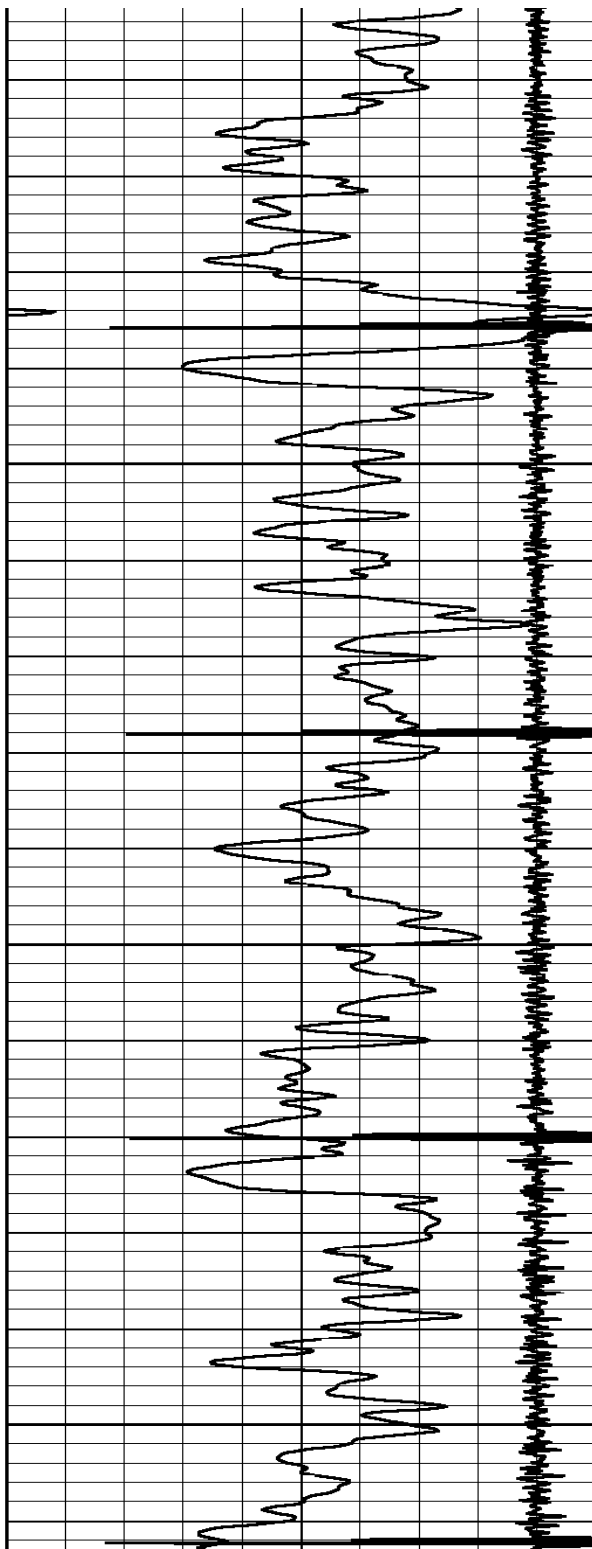


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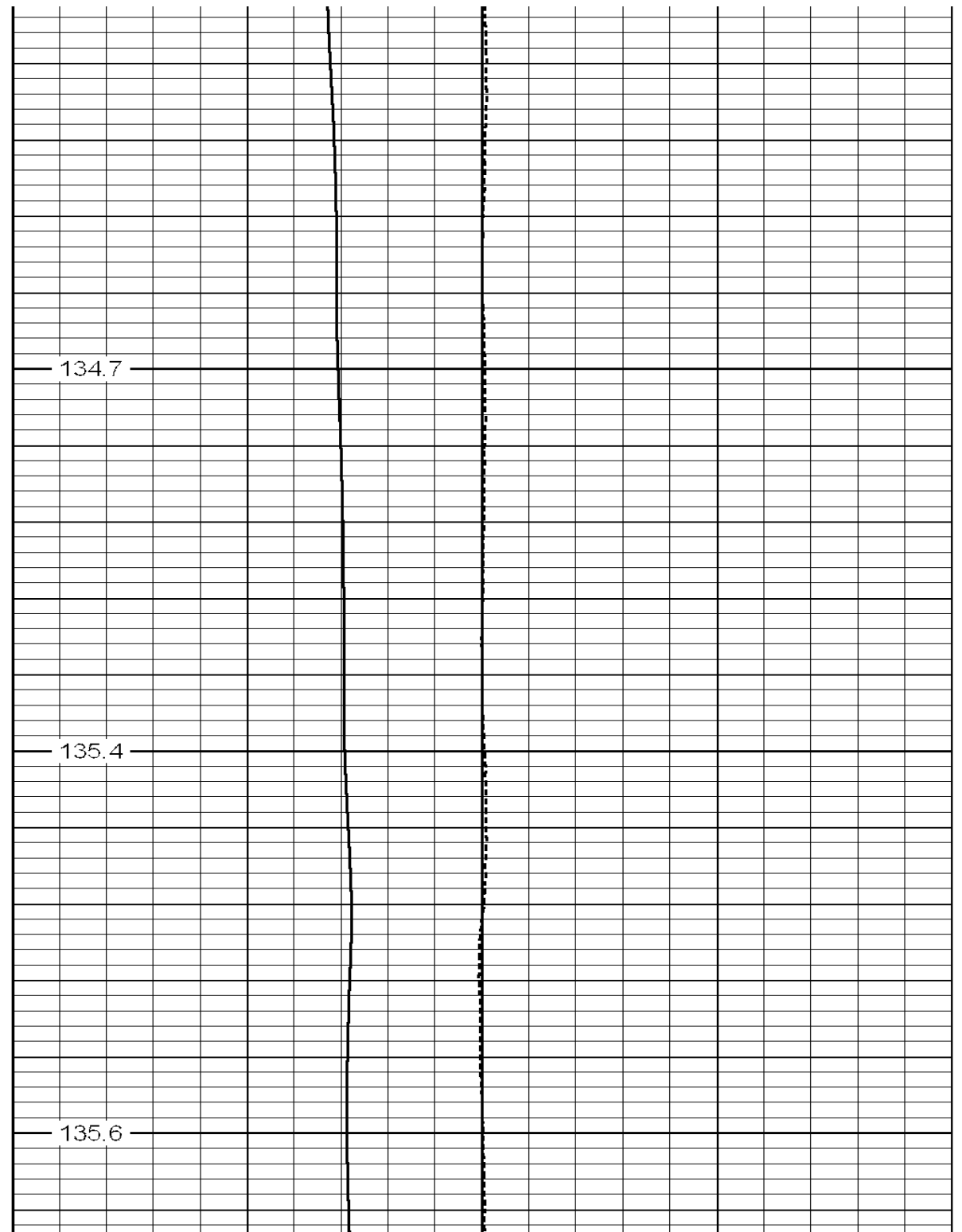
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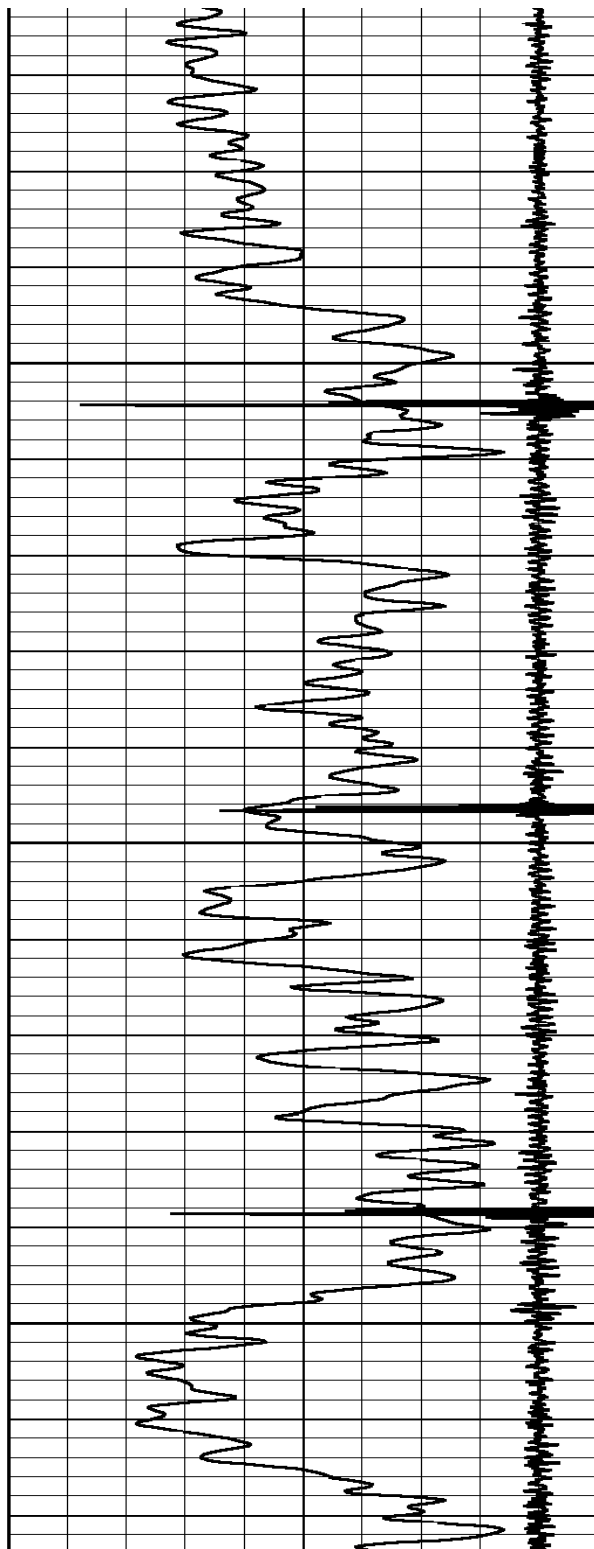
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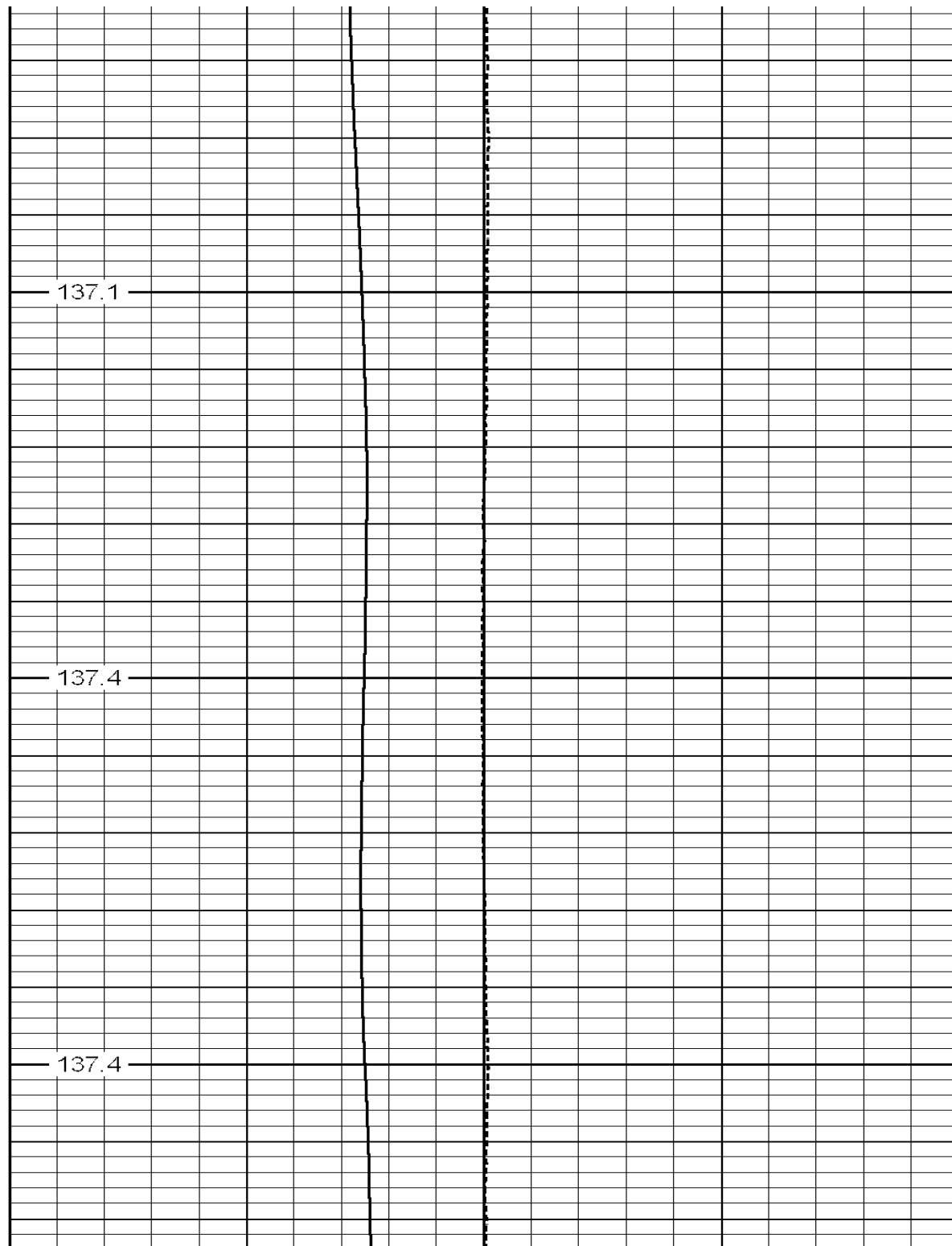
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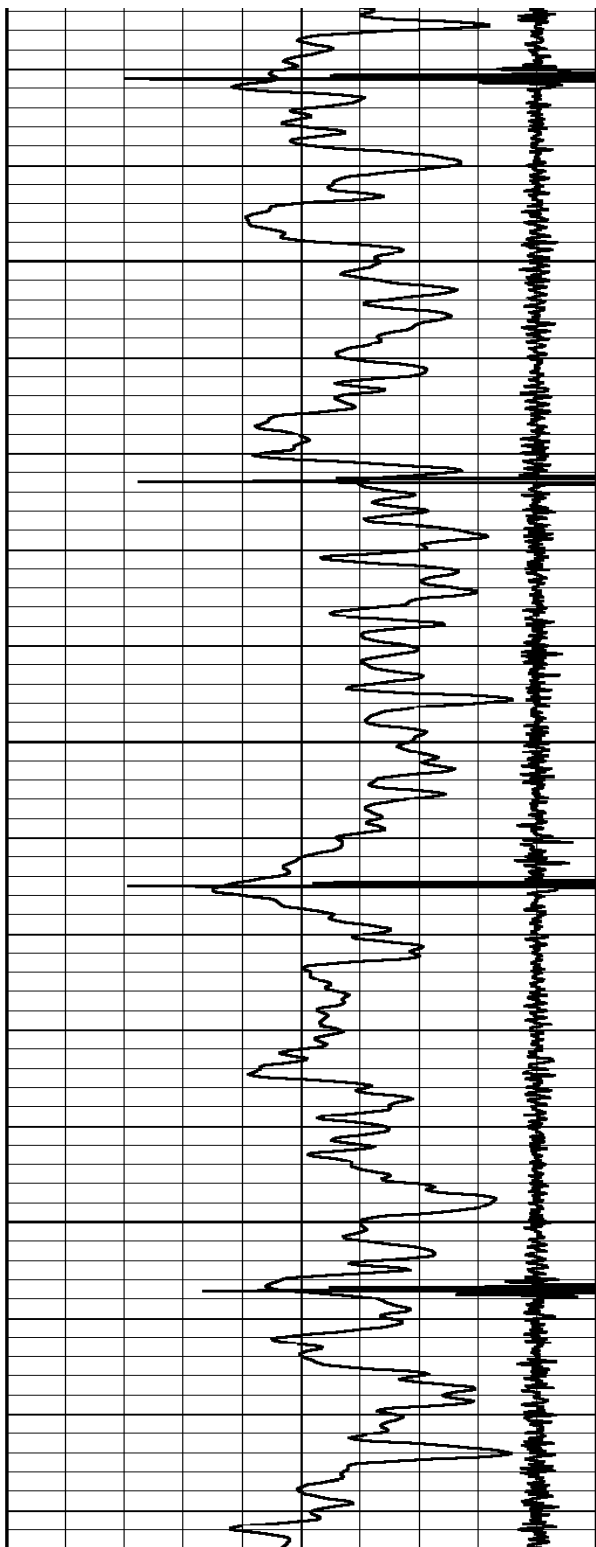
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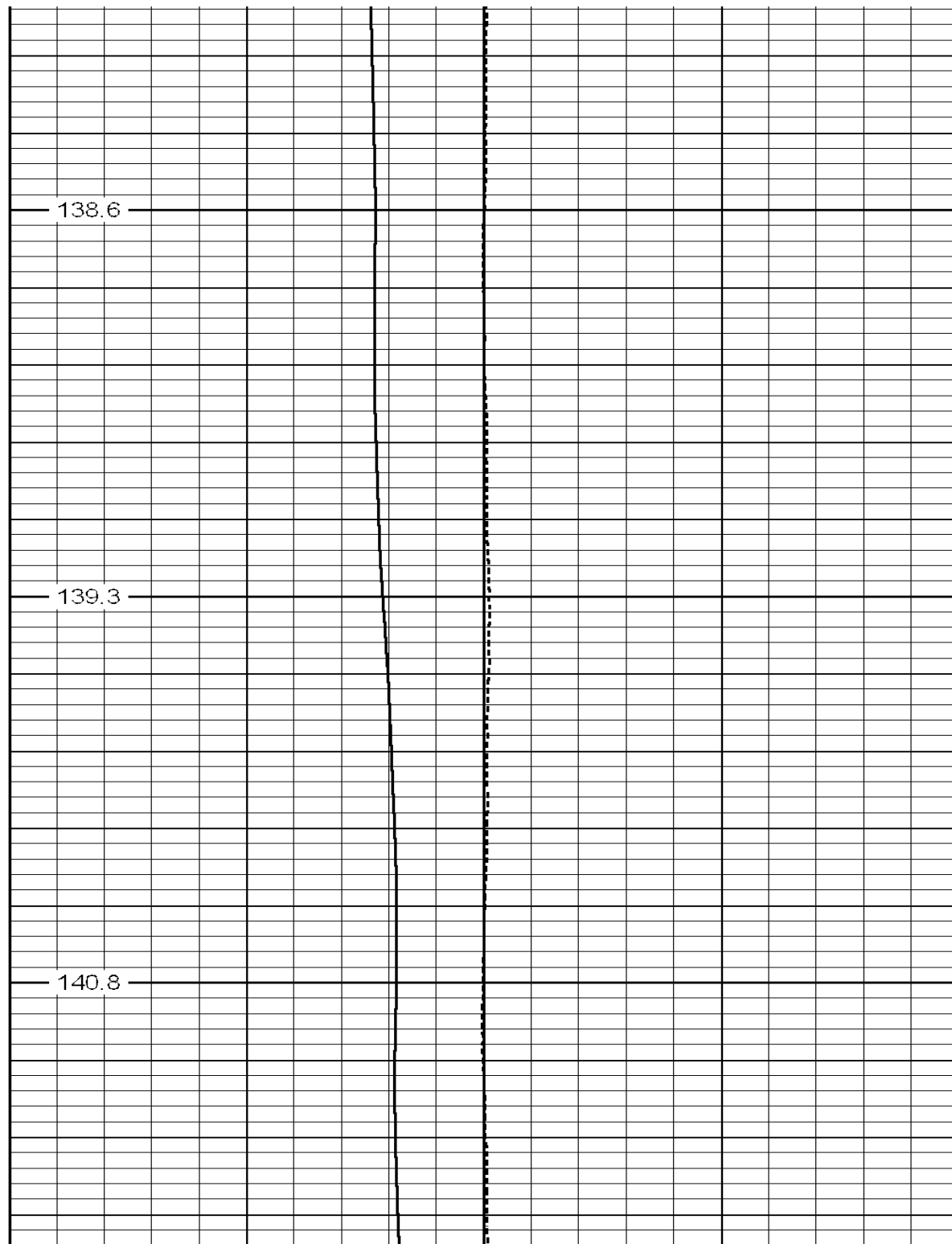
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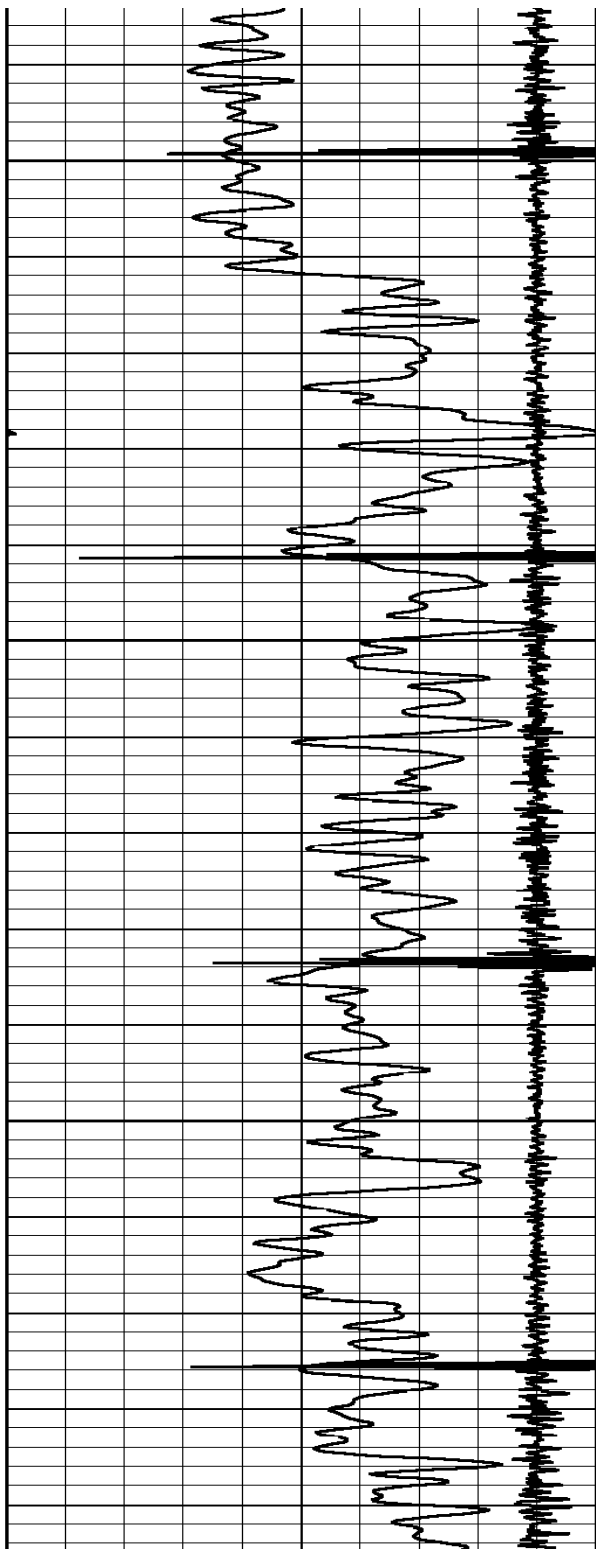


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5700

5750

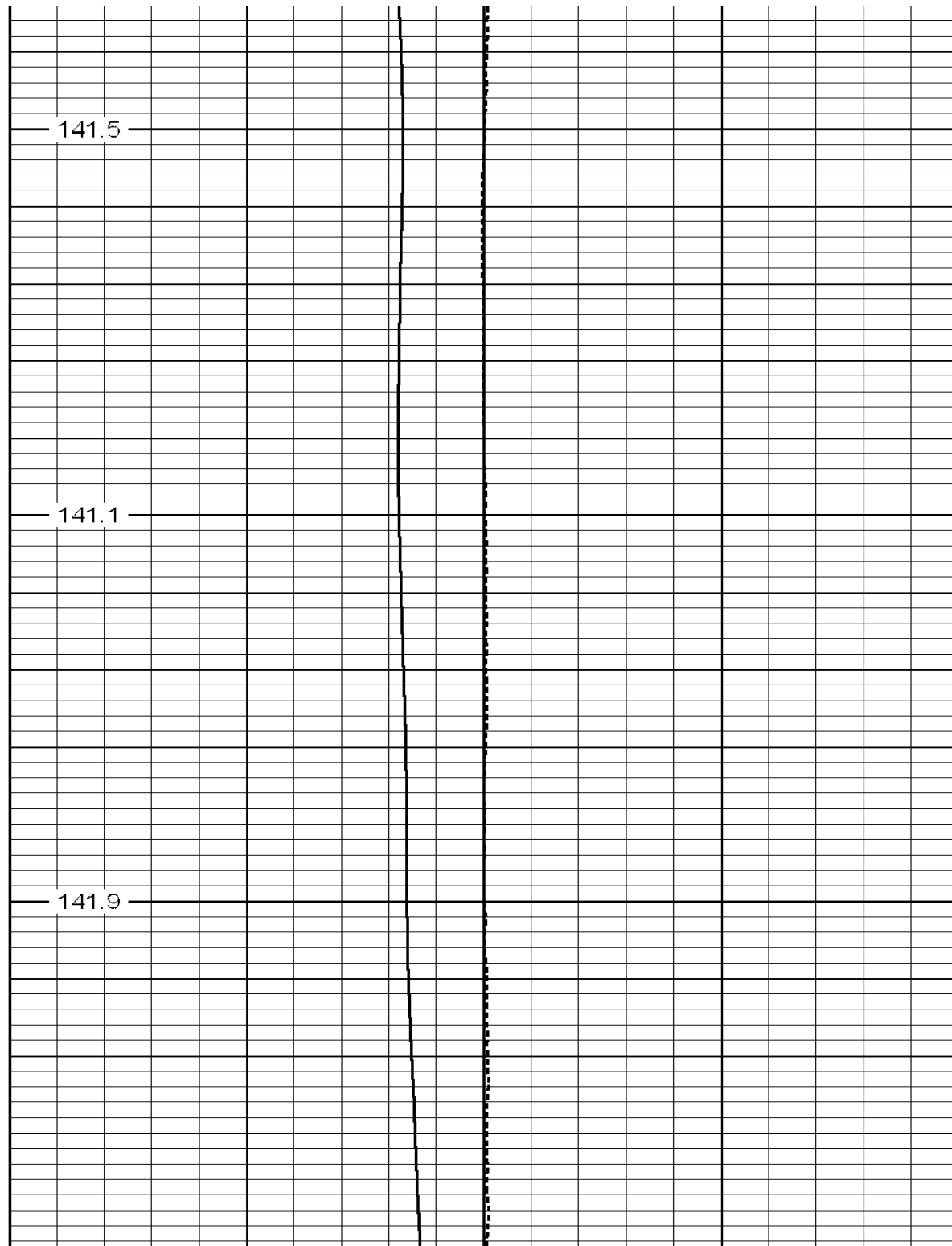


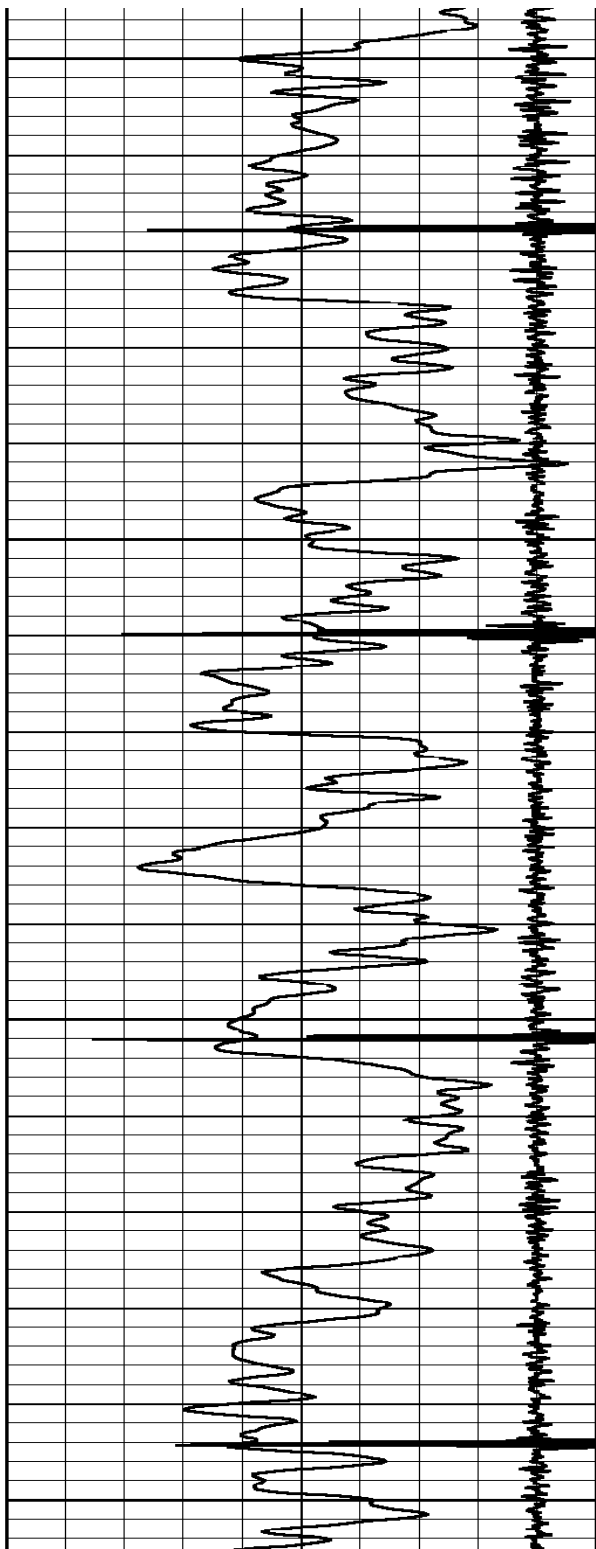


5800

5850

5900



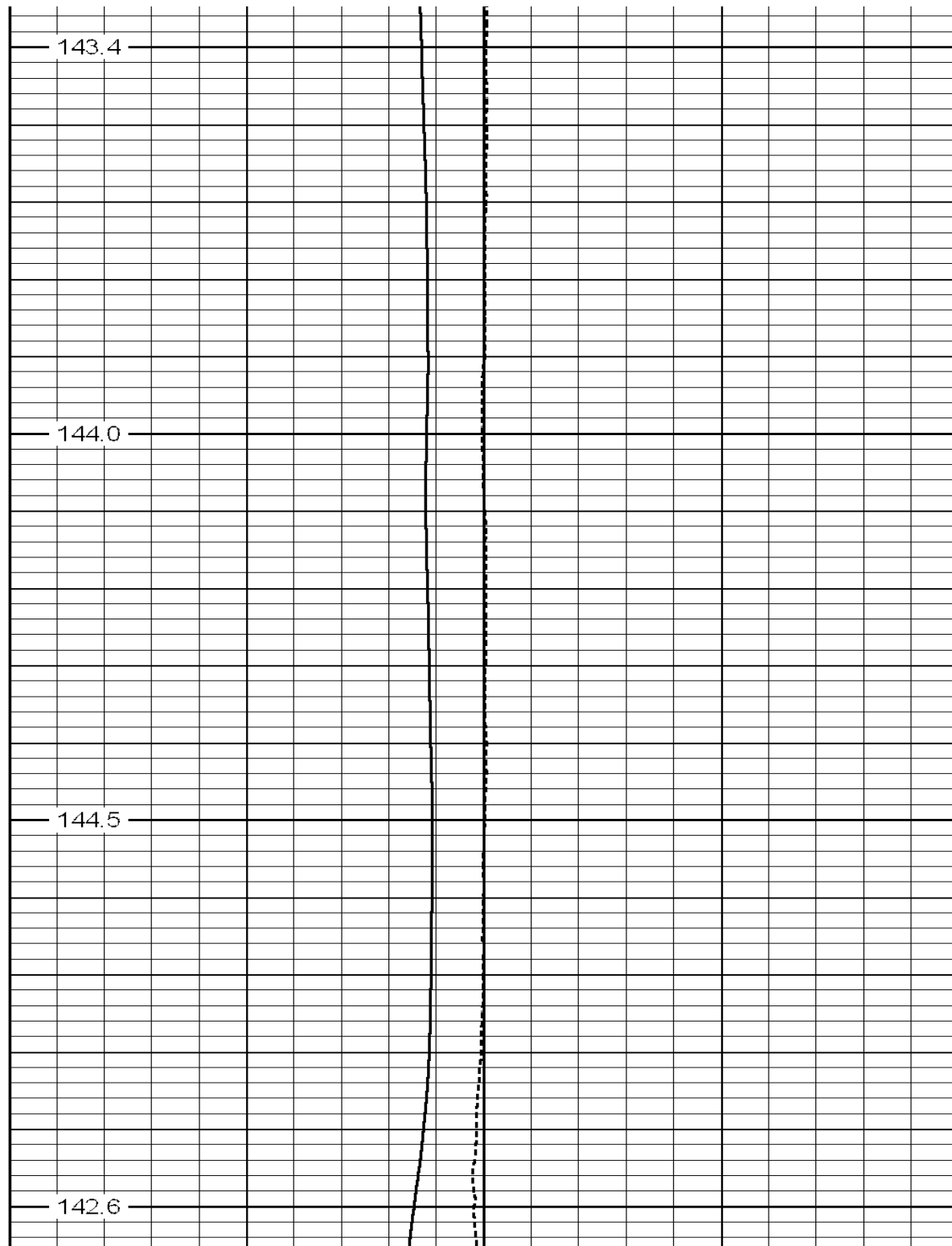


5950

6000

6050

6100

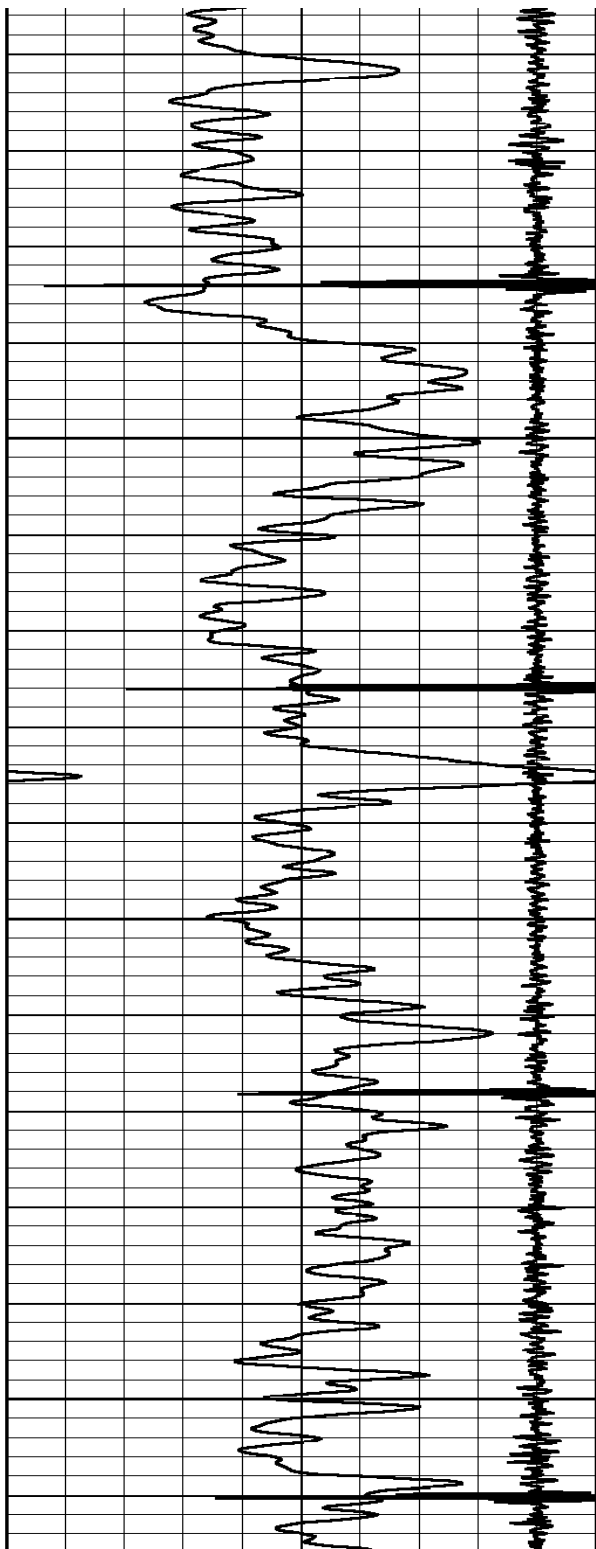


143.4

144.0

144.5

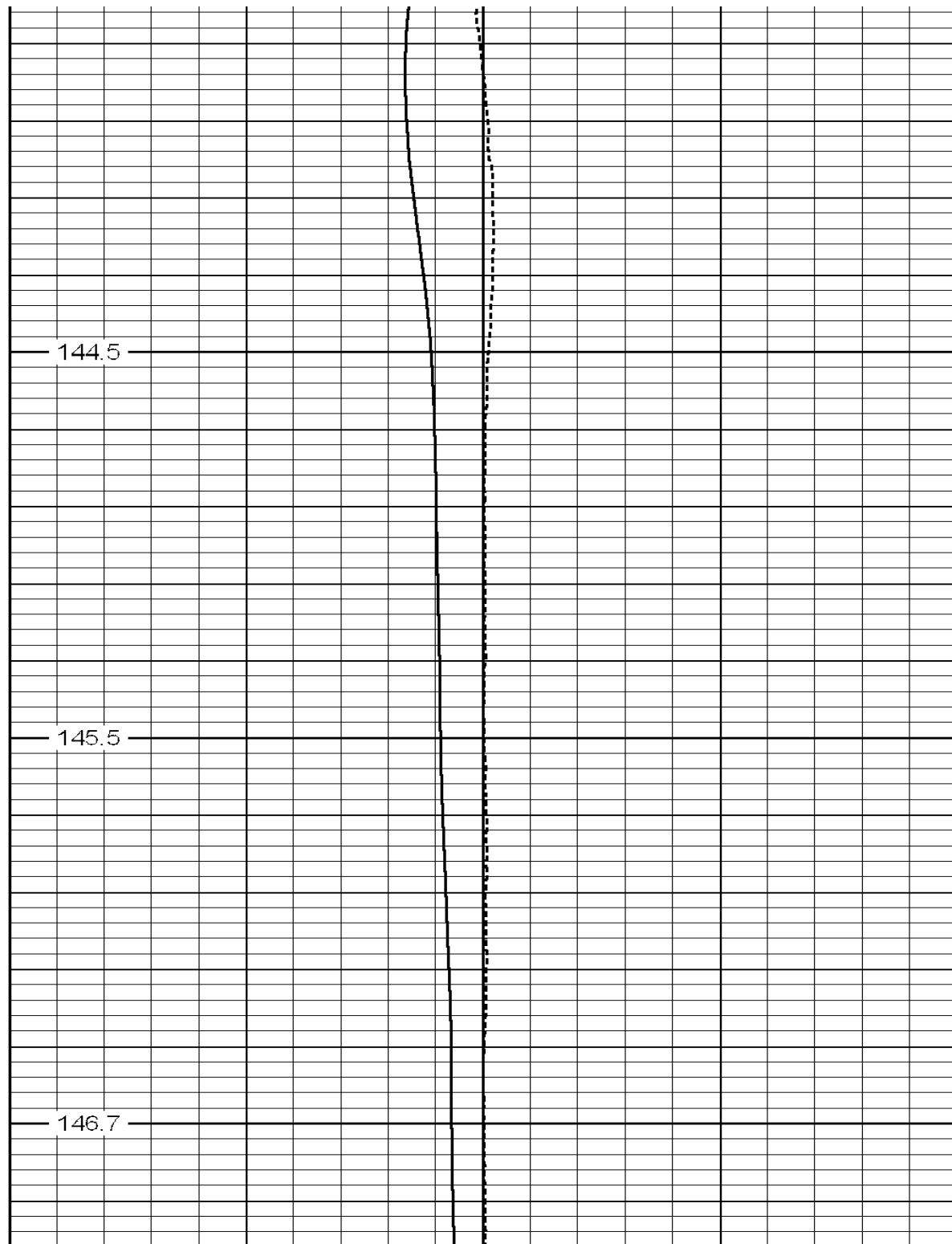
142.6

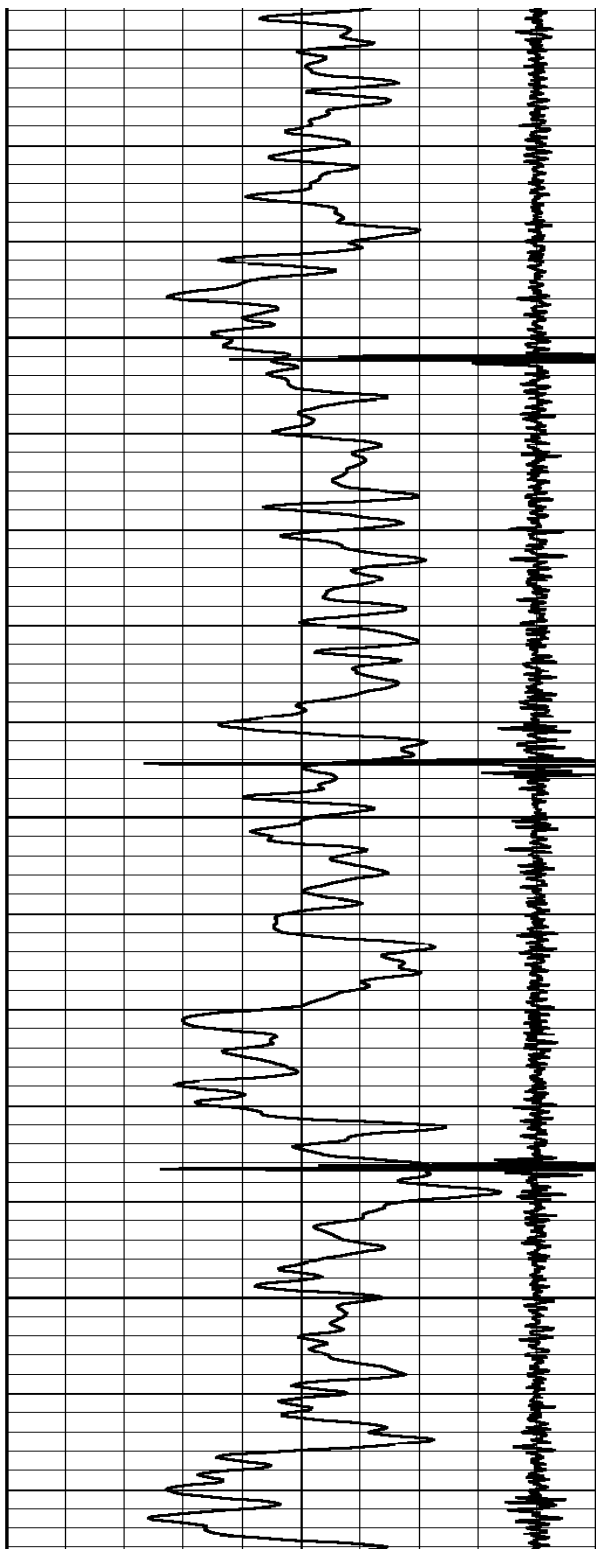


6150

6200

6250

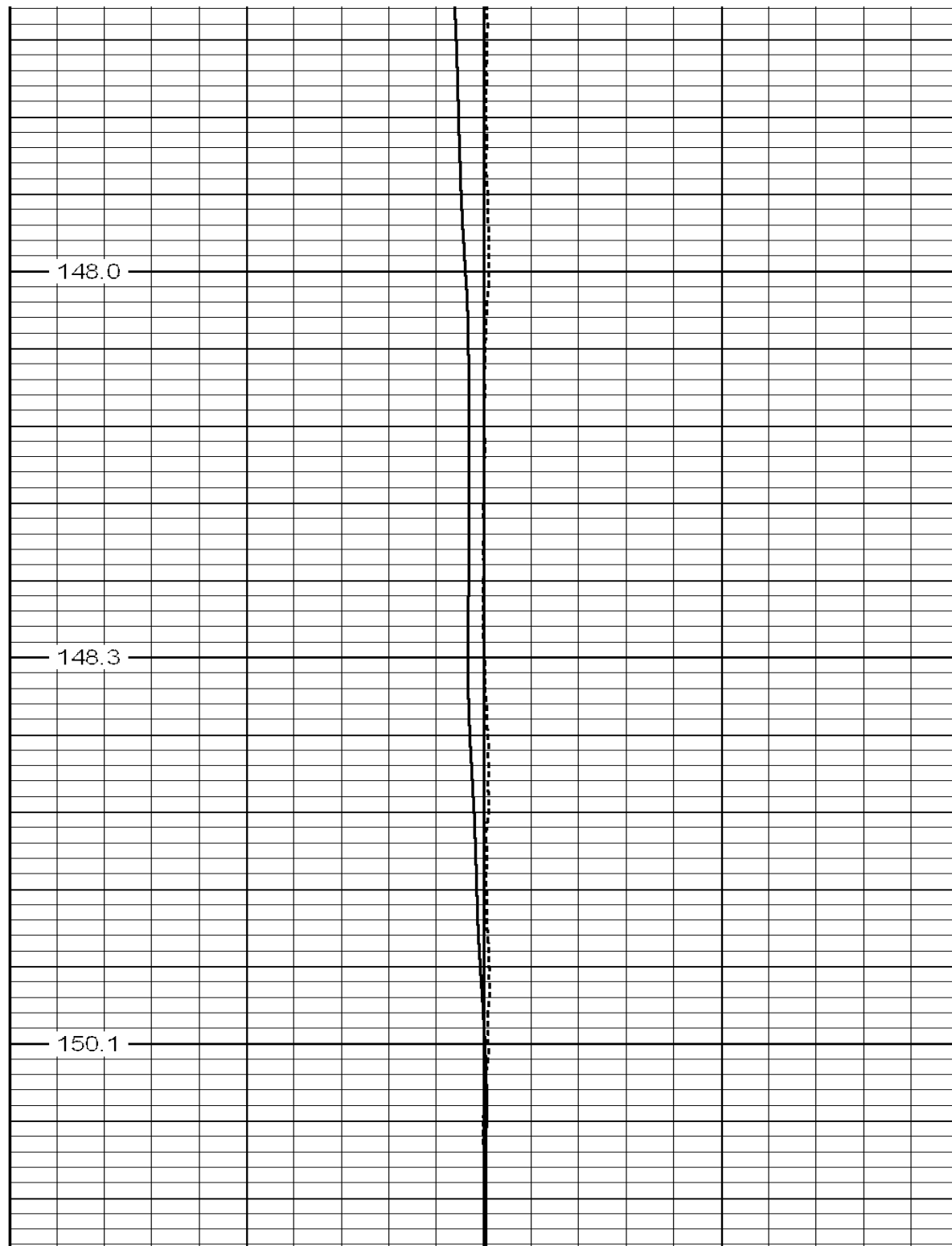




6300

6350

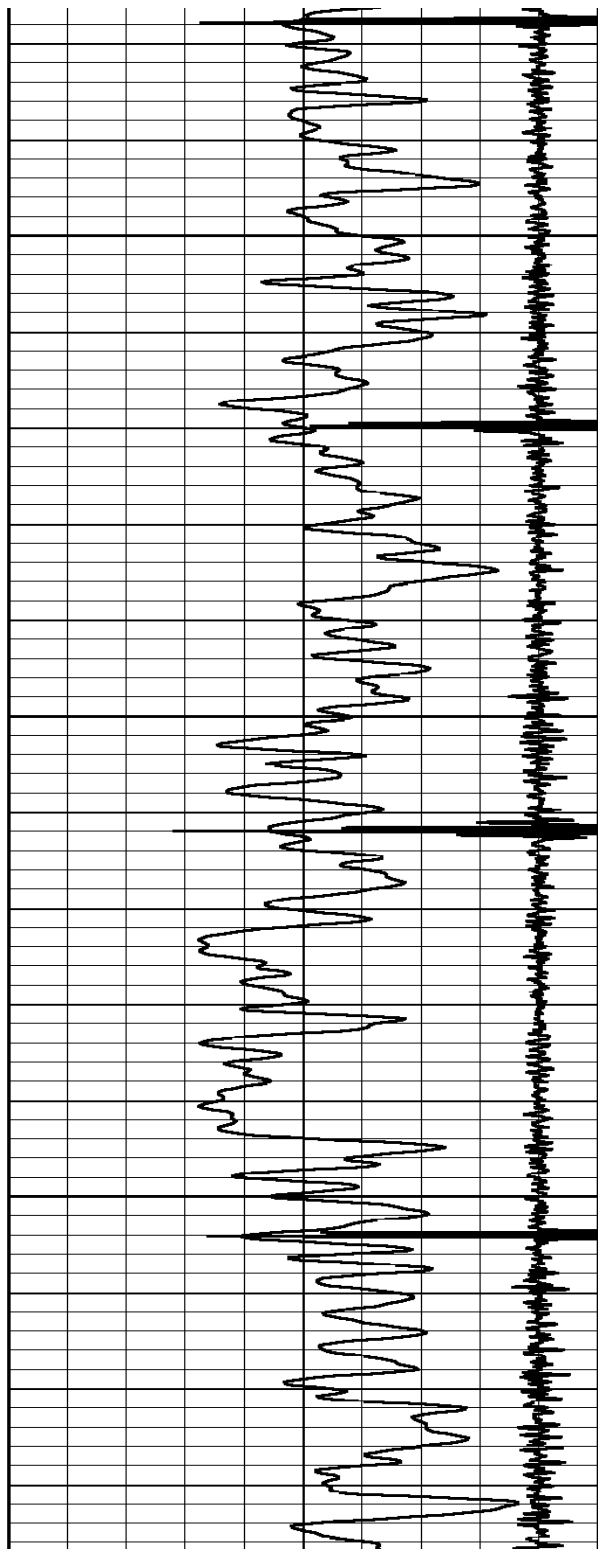
6400



148.0

148.3

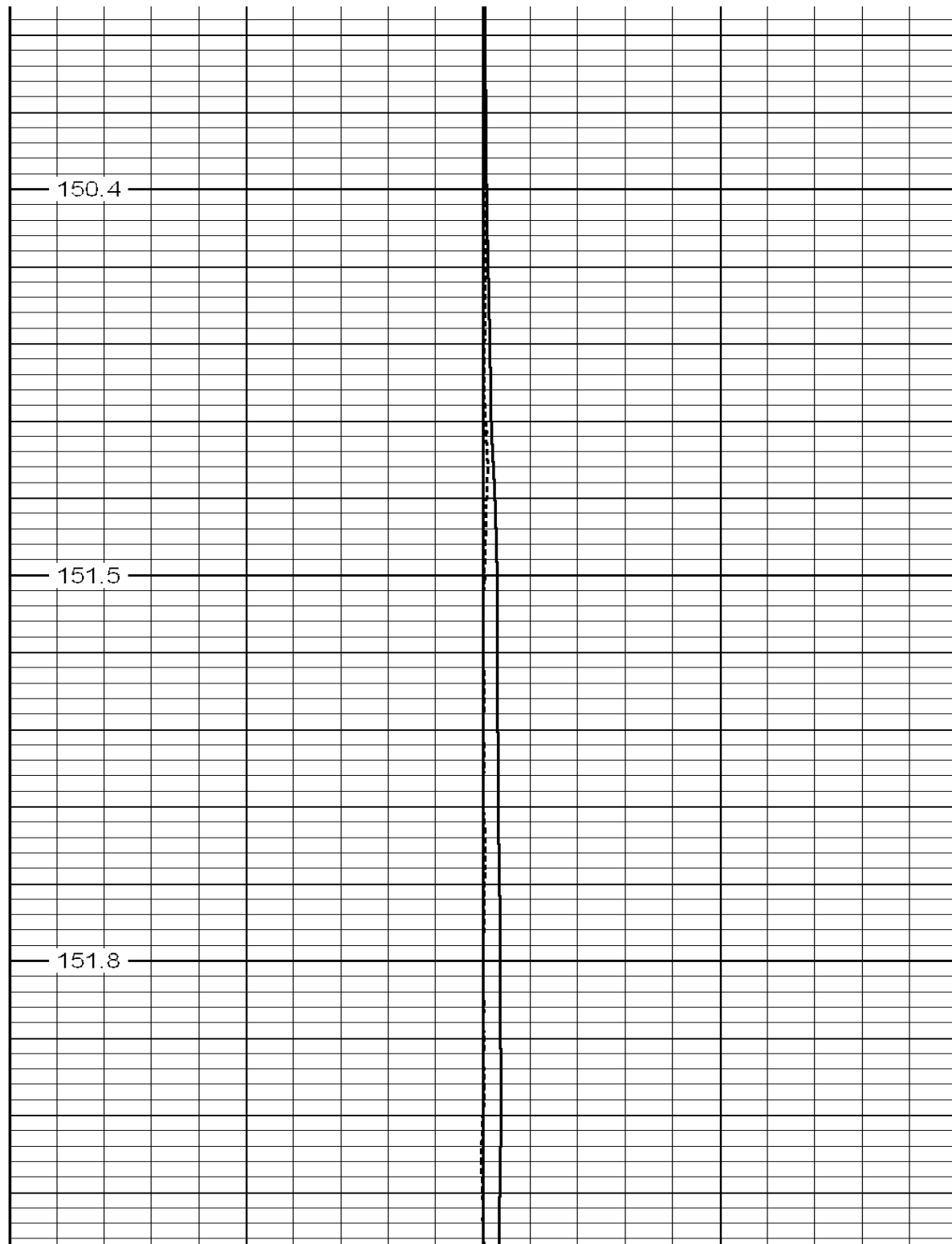
150.1

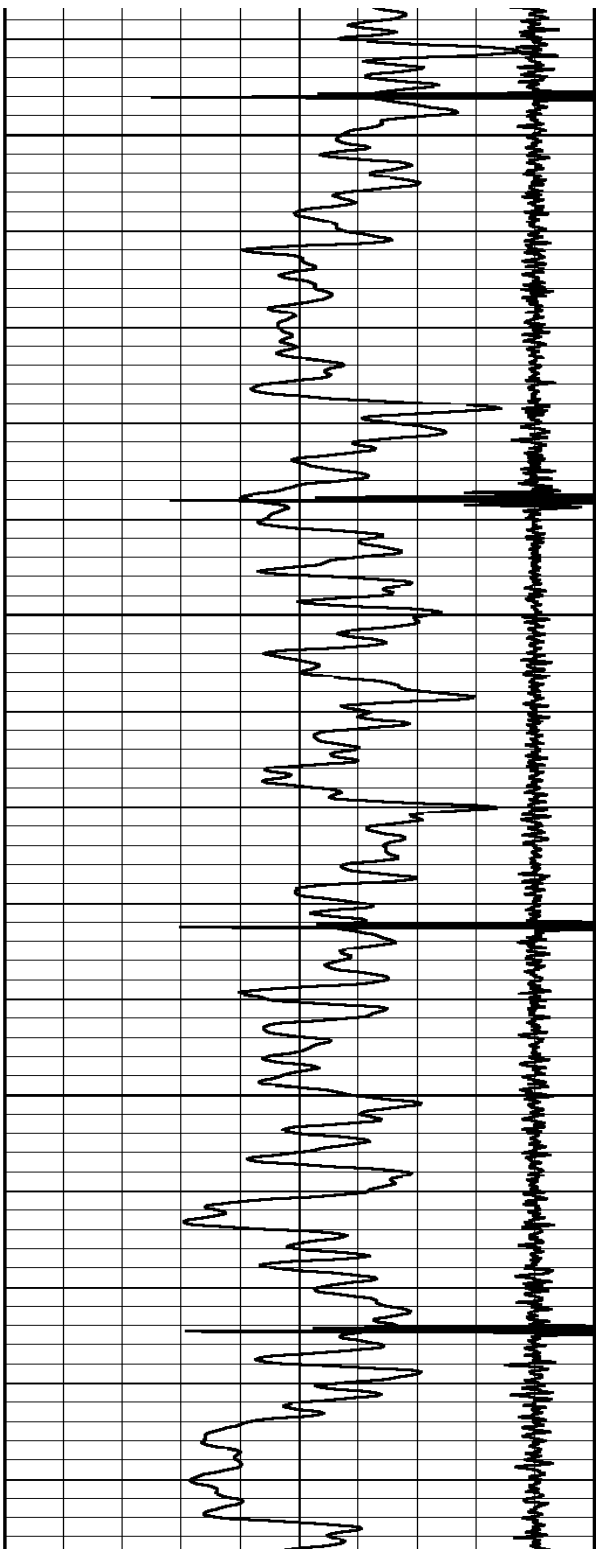


6450

6500

6550

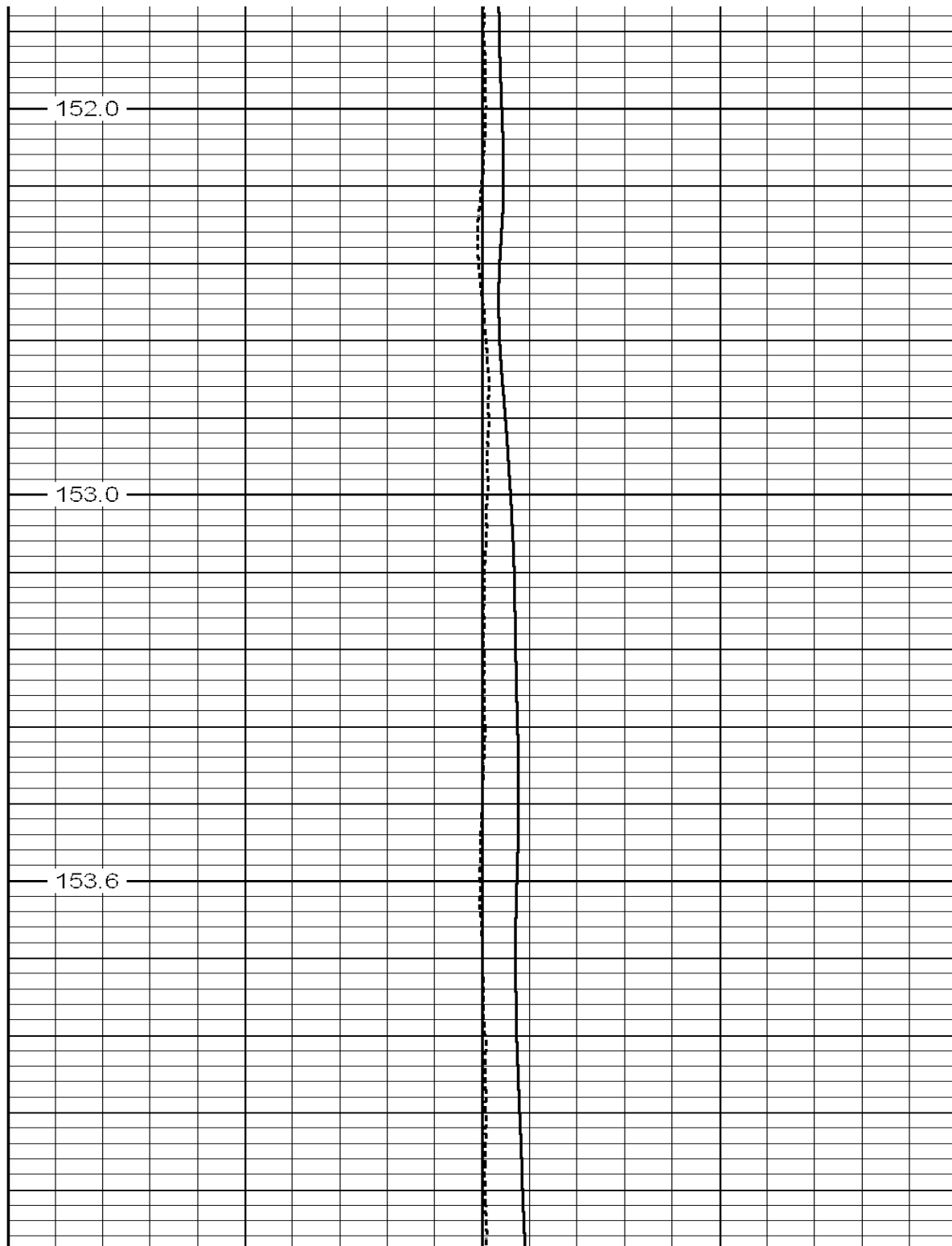




6600

6650

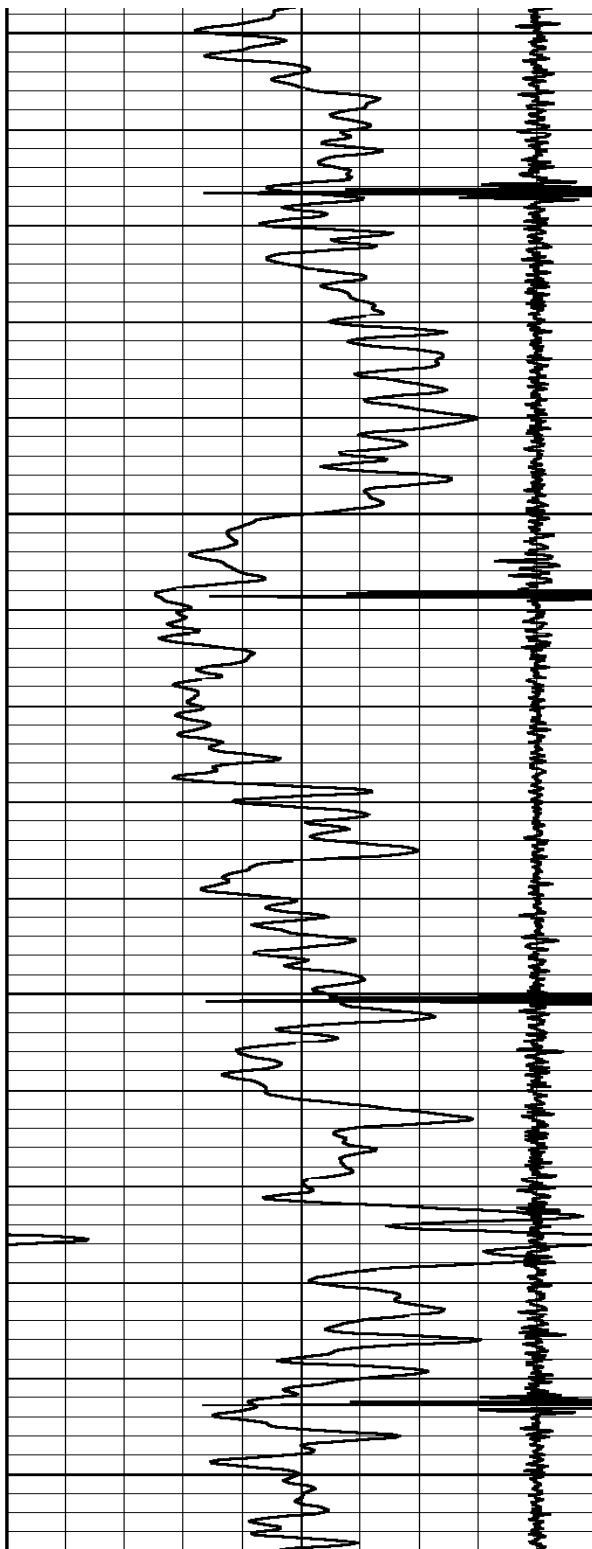
6700



152.0

153.0

153.6

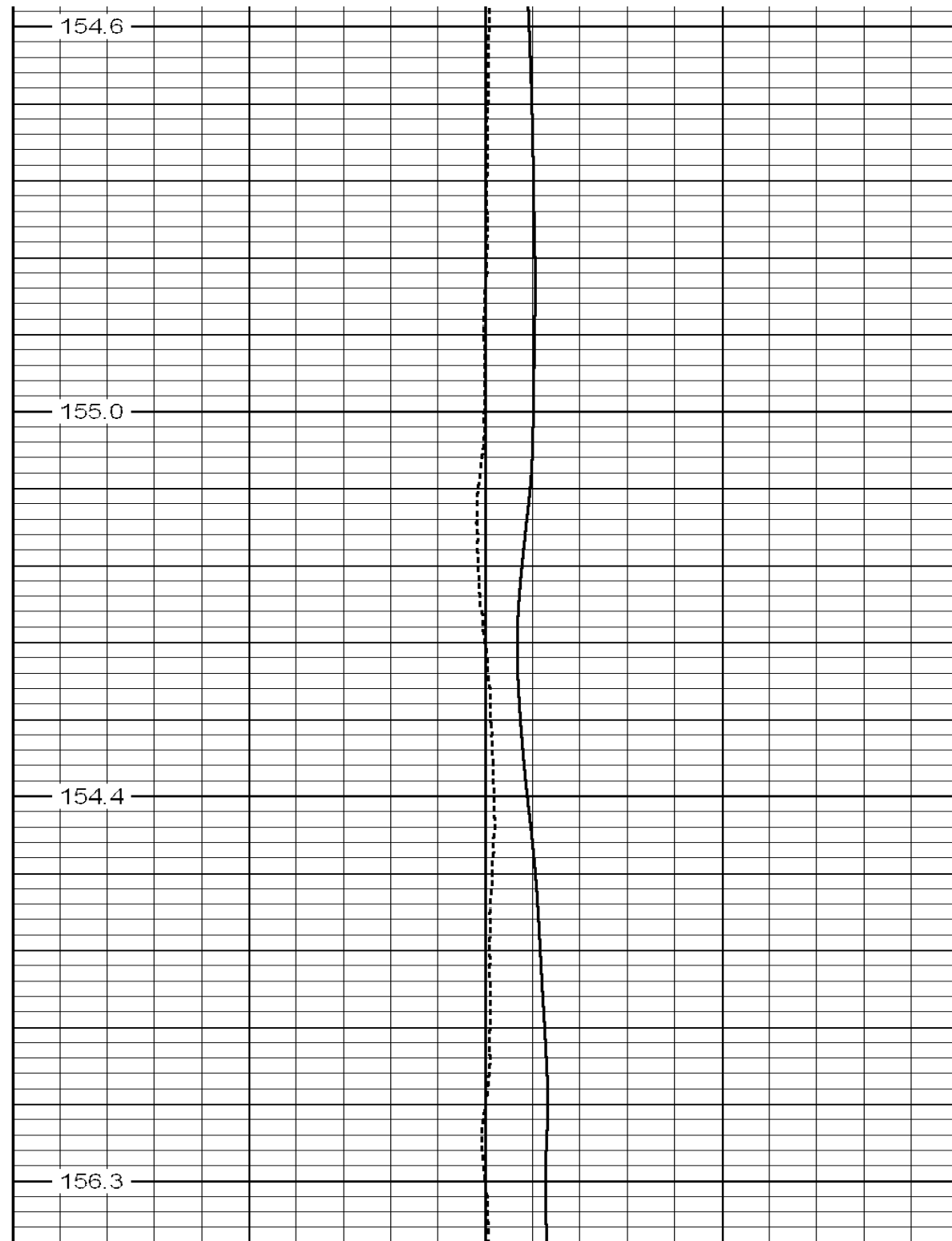


6750

6800

6850

6900

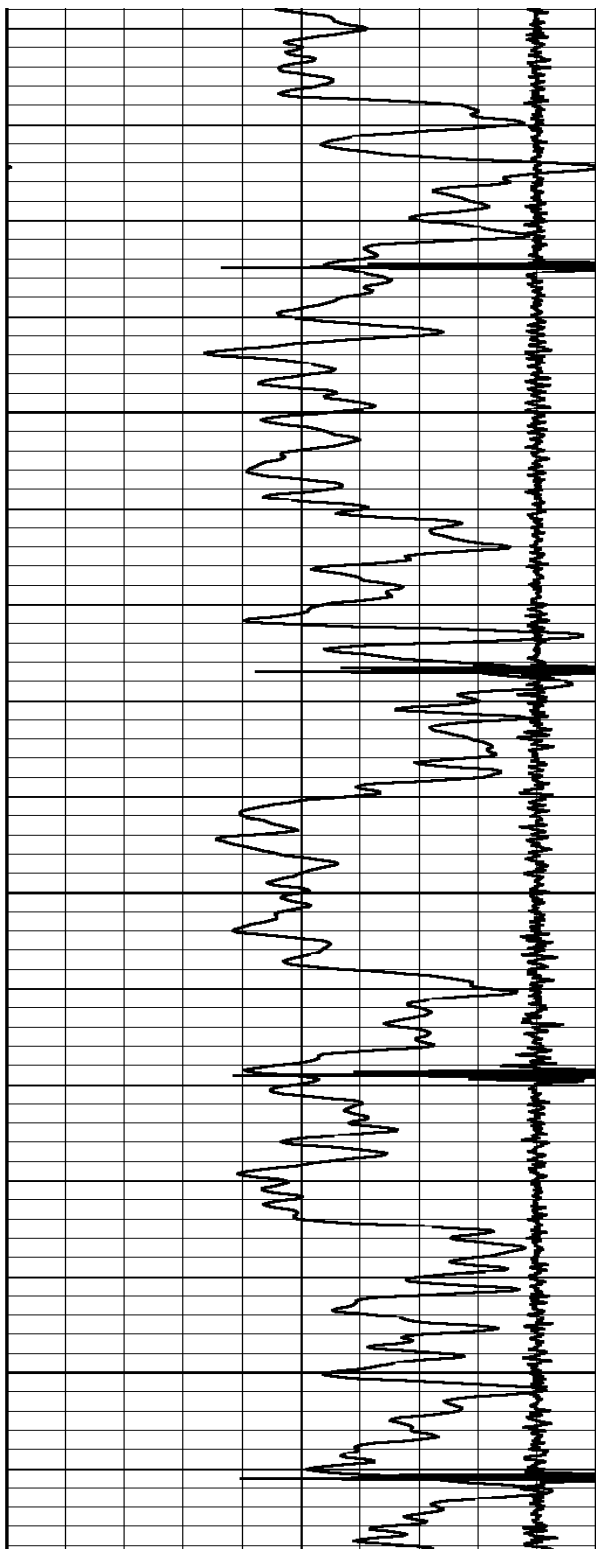


154.6

155.0

154.4

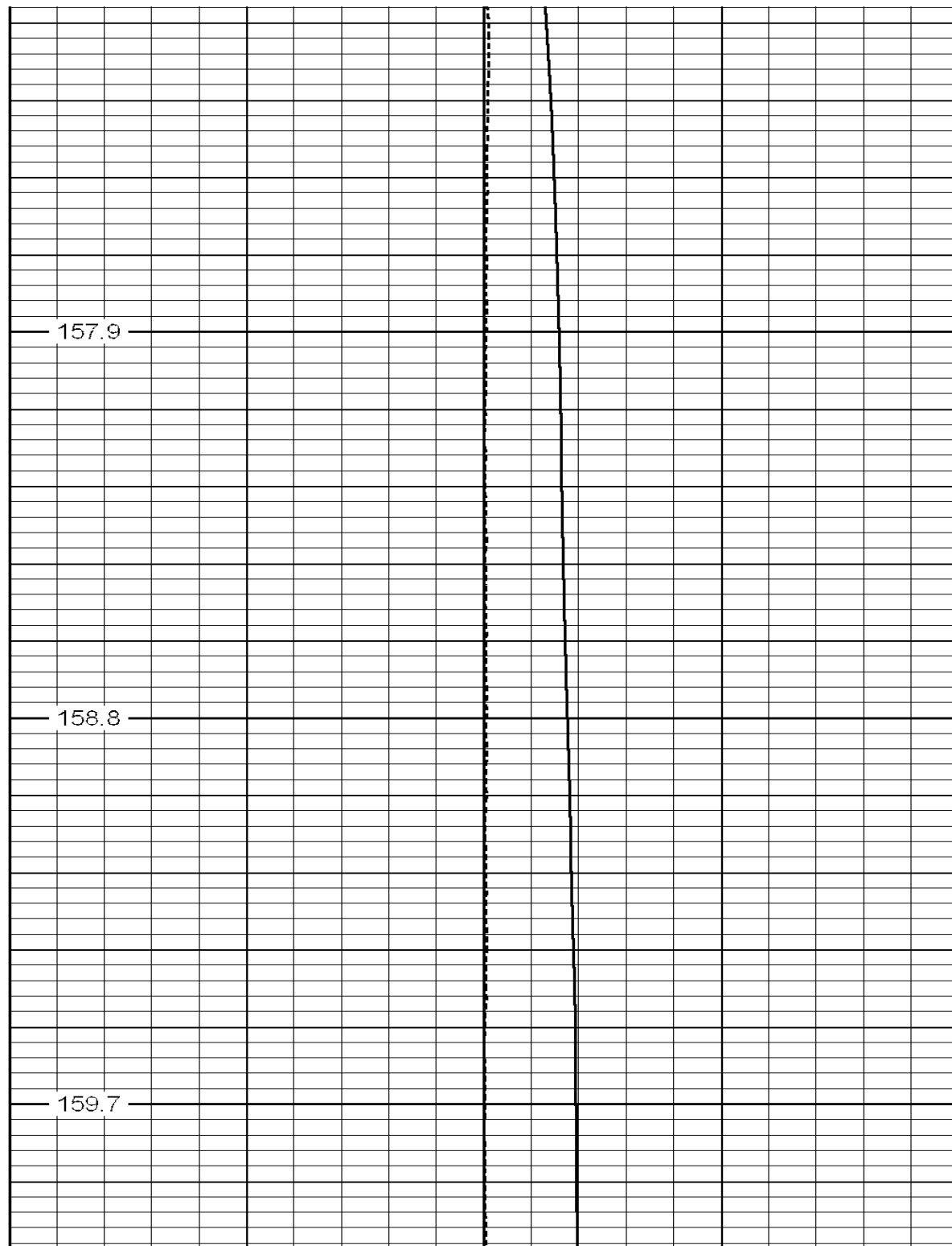
156.3



6950

7000

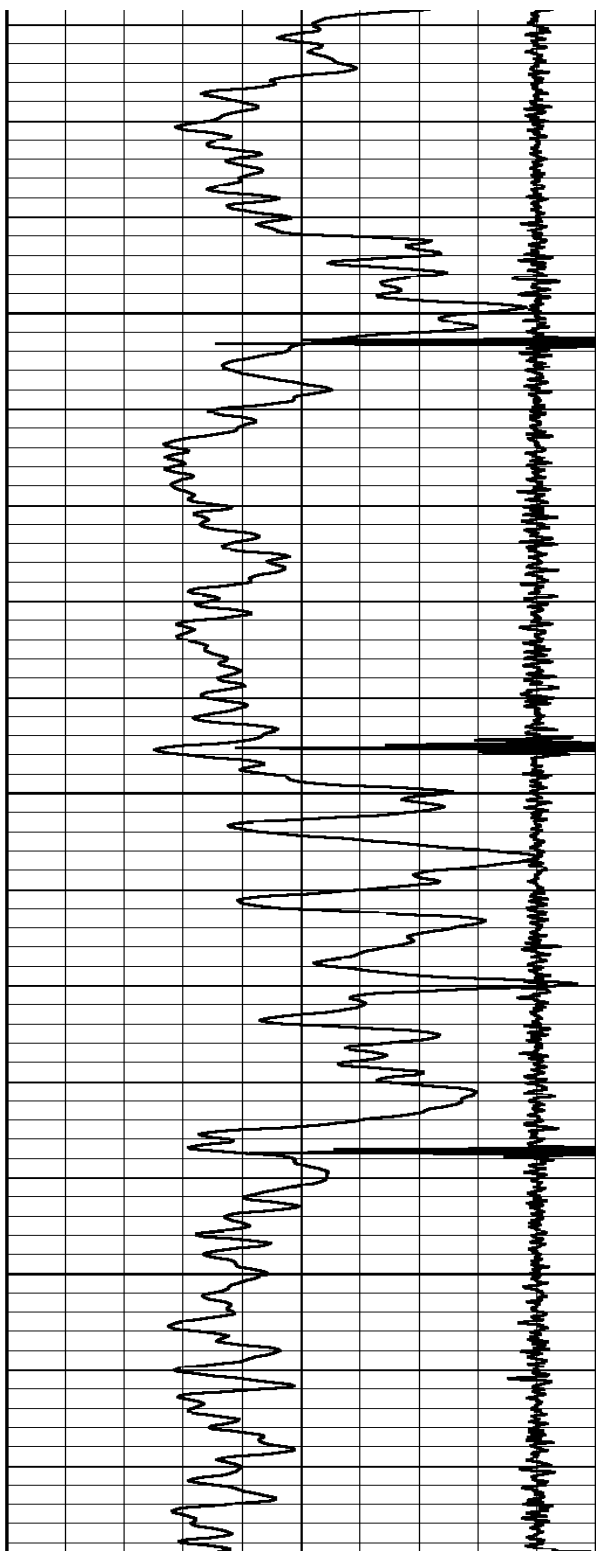
7050



157.9

158.8

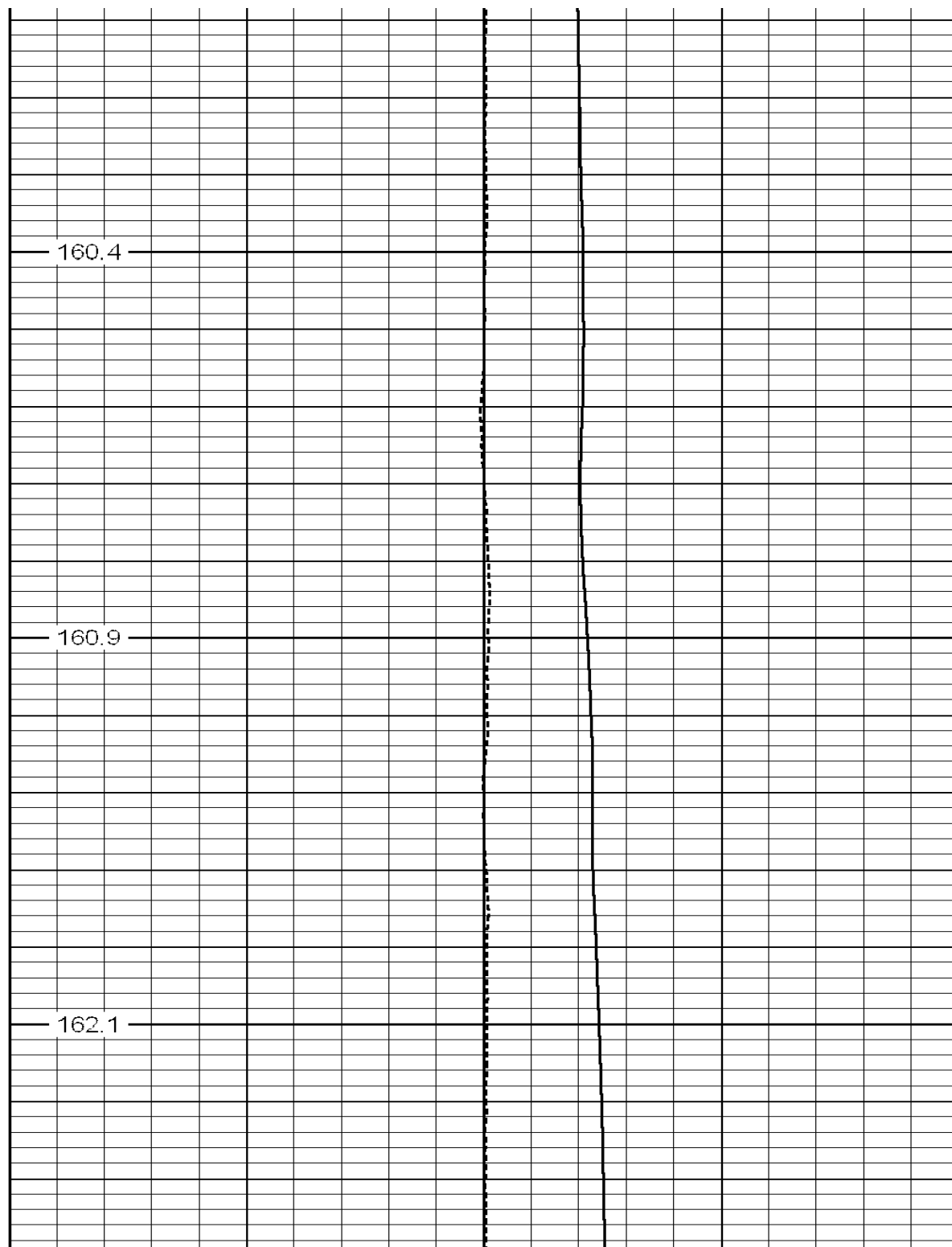
159.7



7100

7150

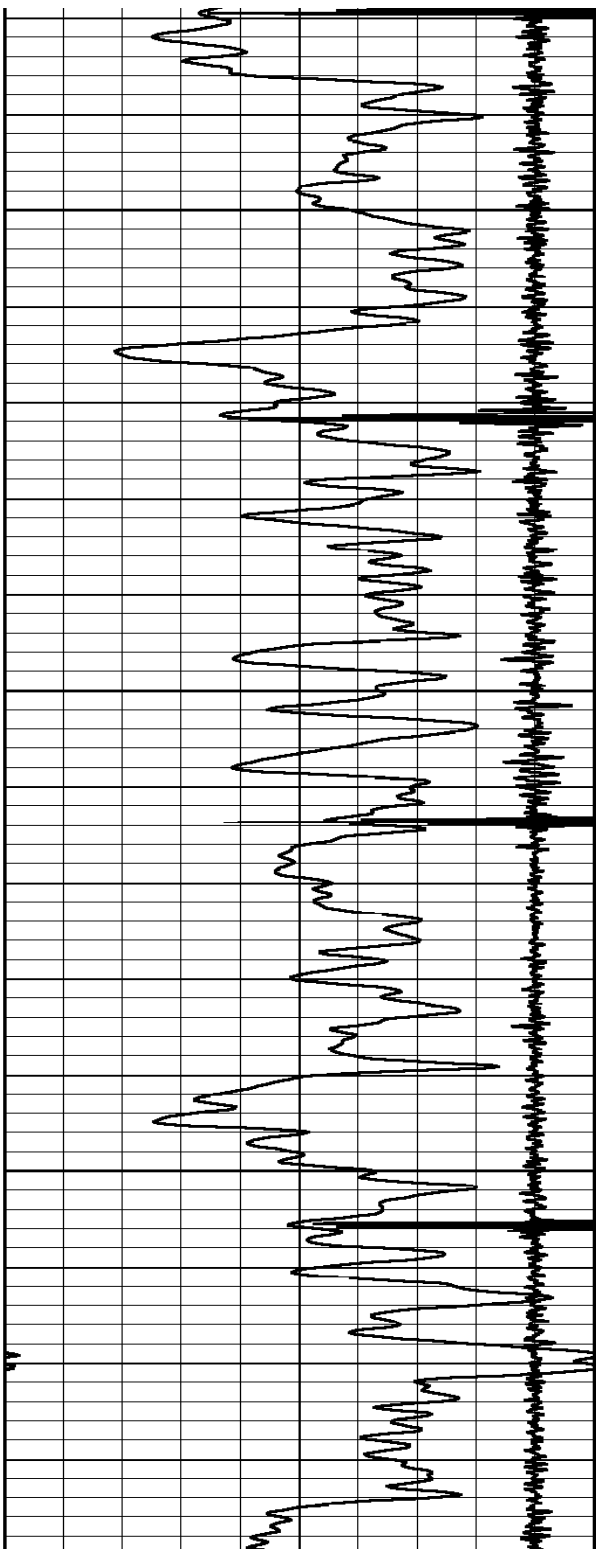
7200



160.4

160.9

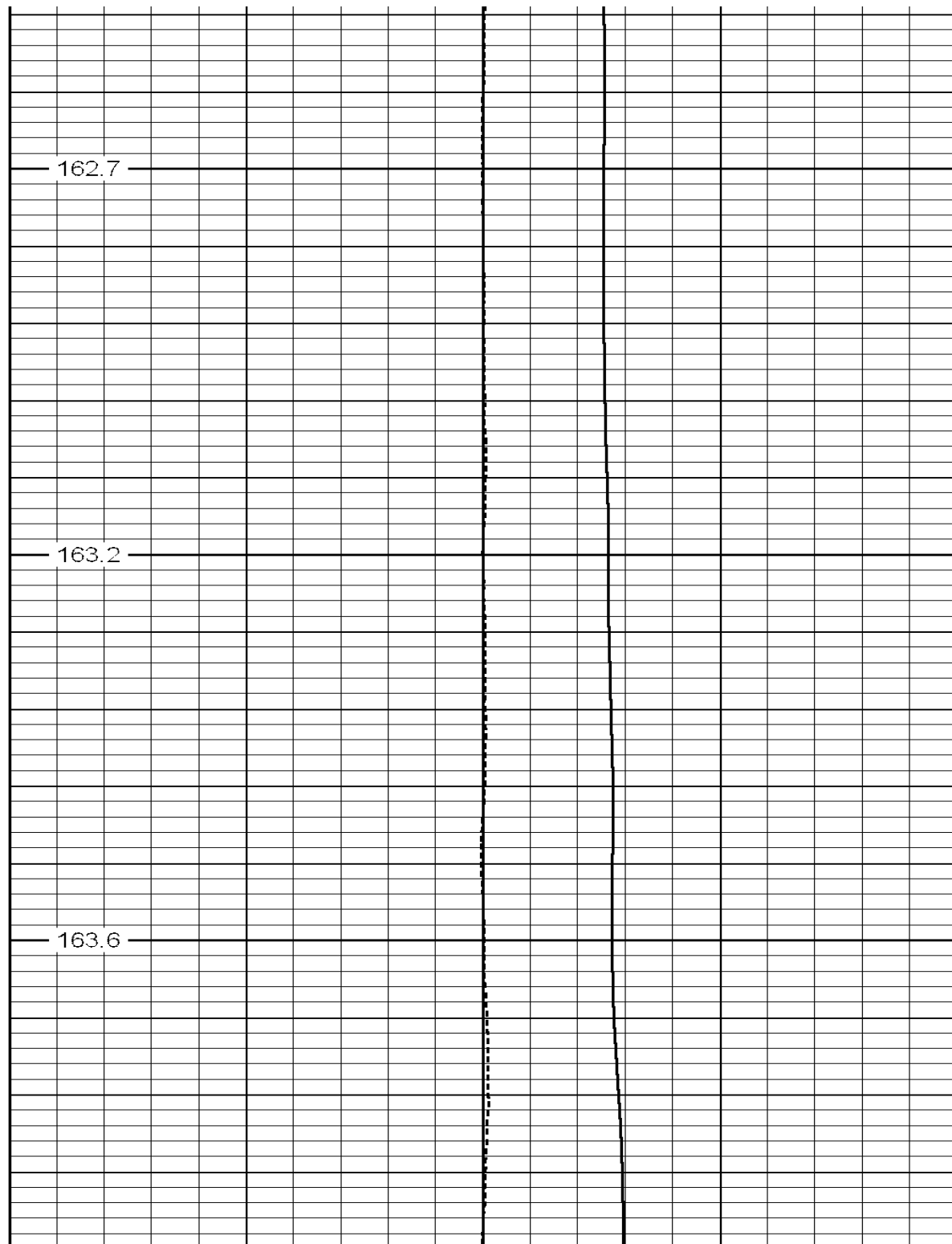
162.1



7250

7300

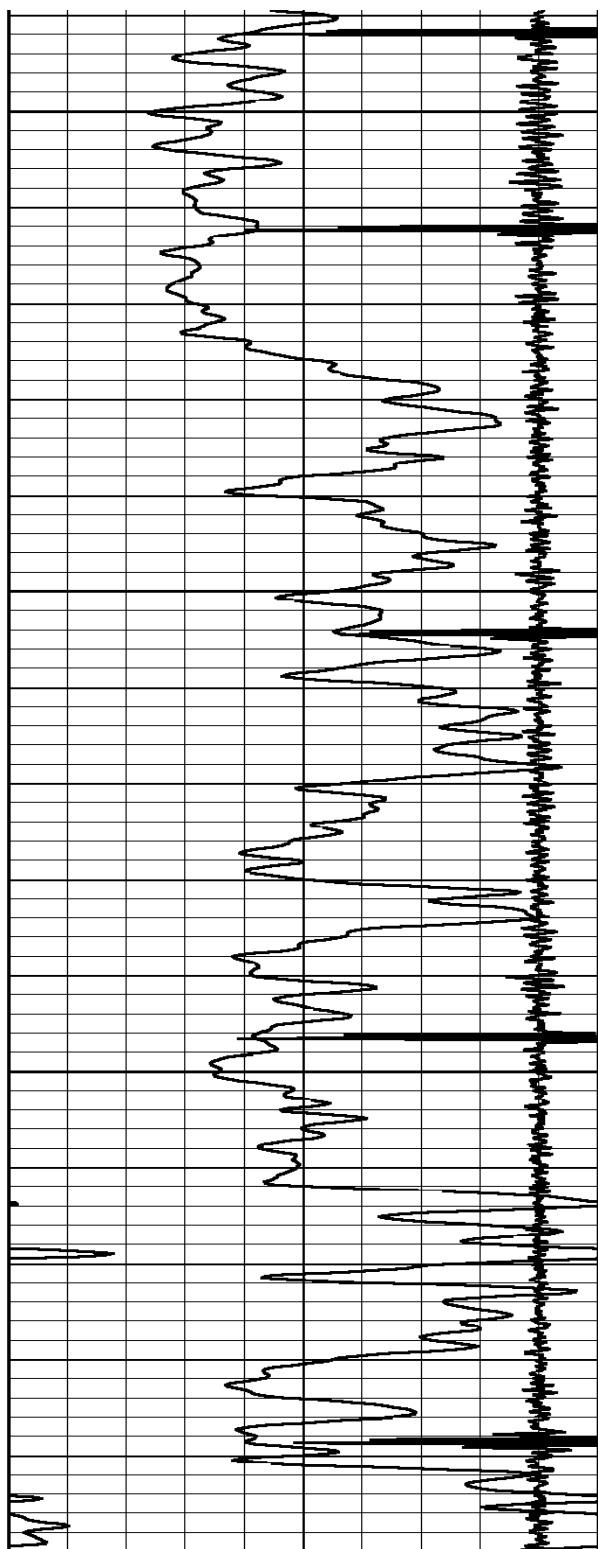
7350



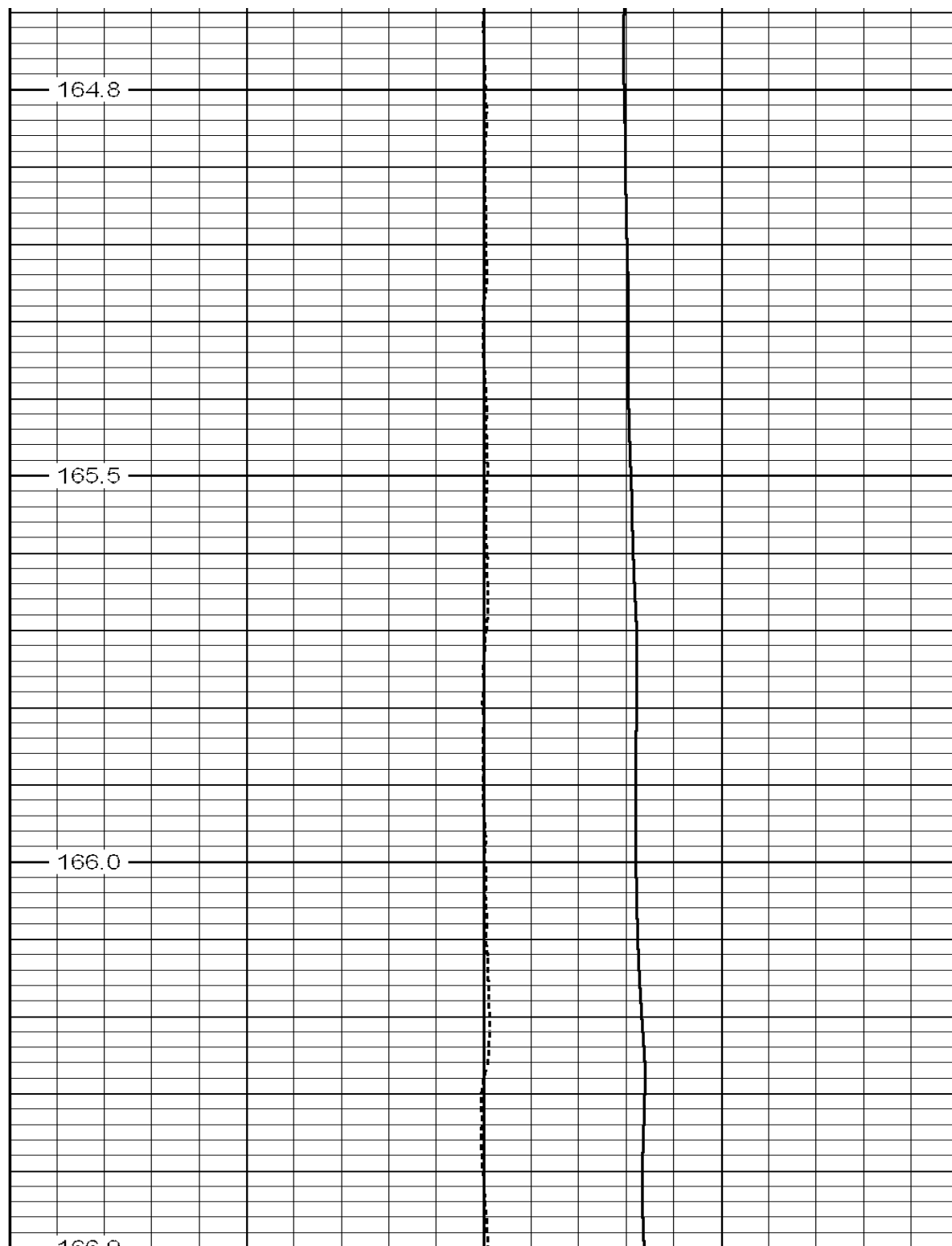
162.7

163.2

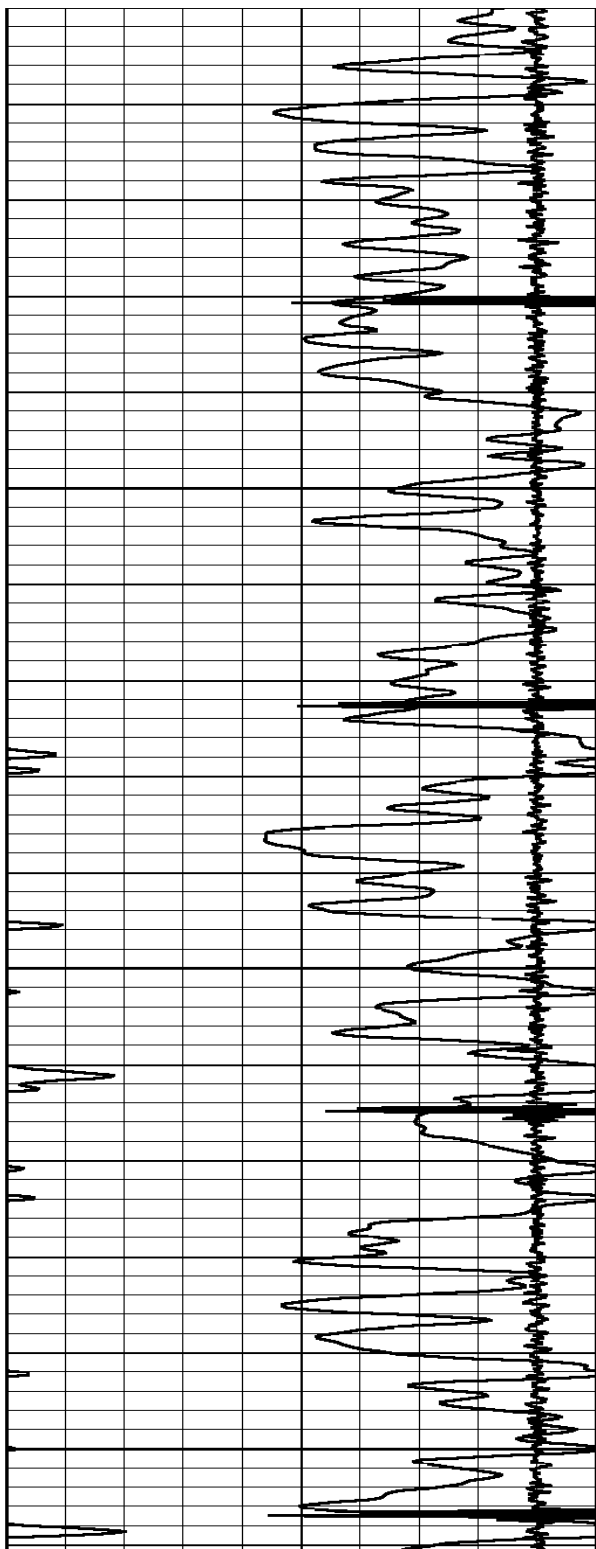
163.6



7400
7450
7500
7550



164.8
165.5
166.0
166.5

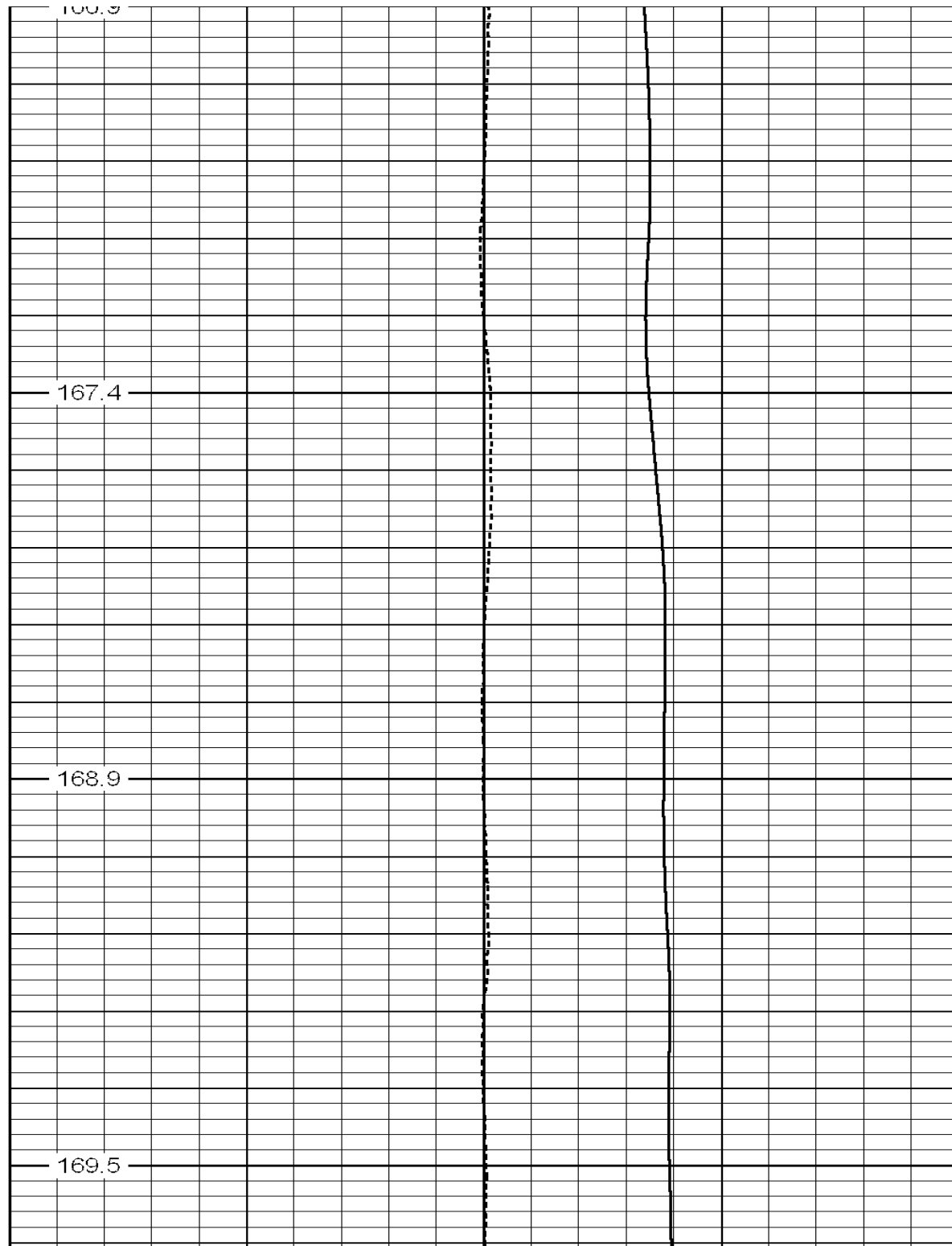


7500

7600

7650

7700

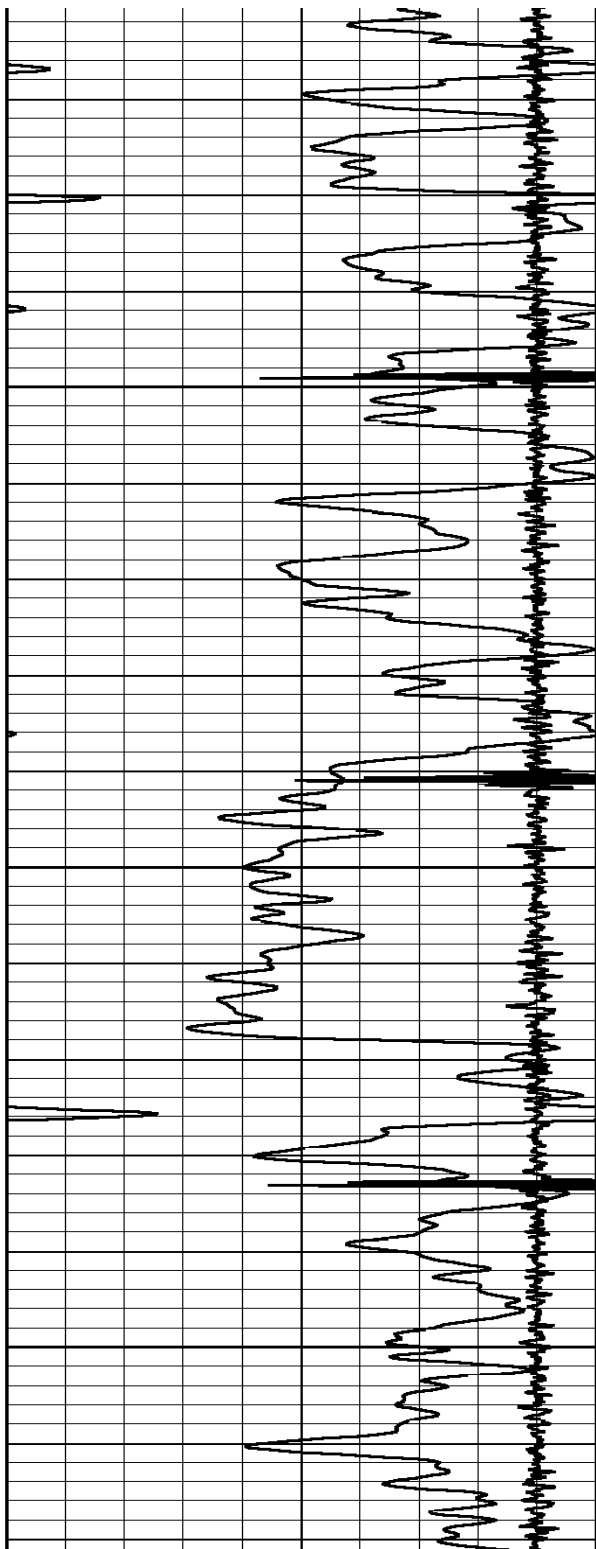


100.9

167.4

168.9

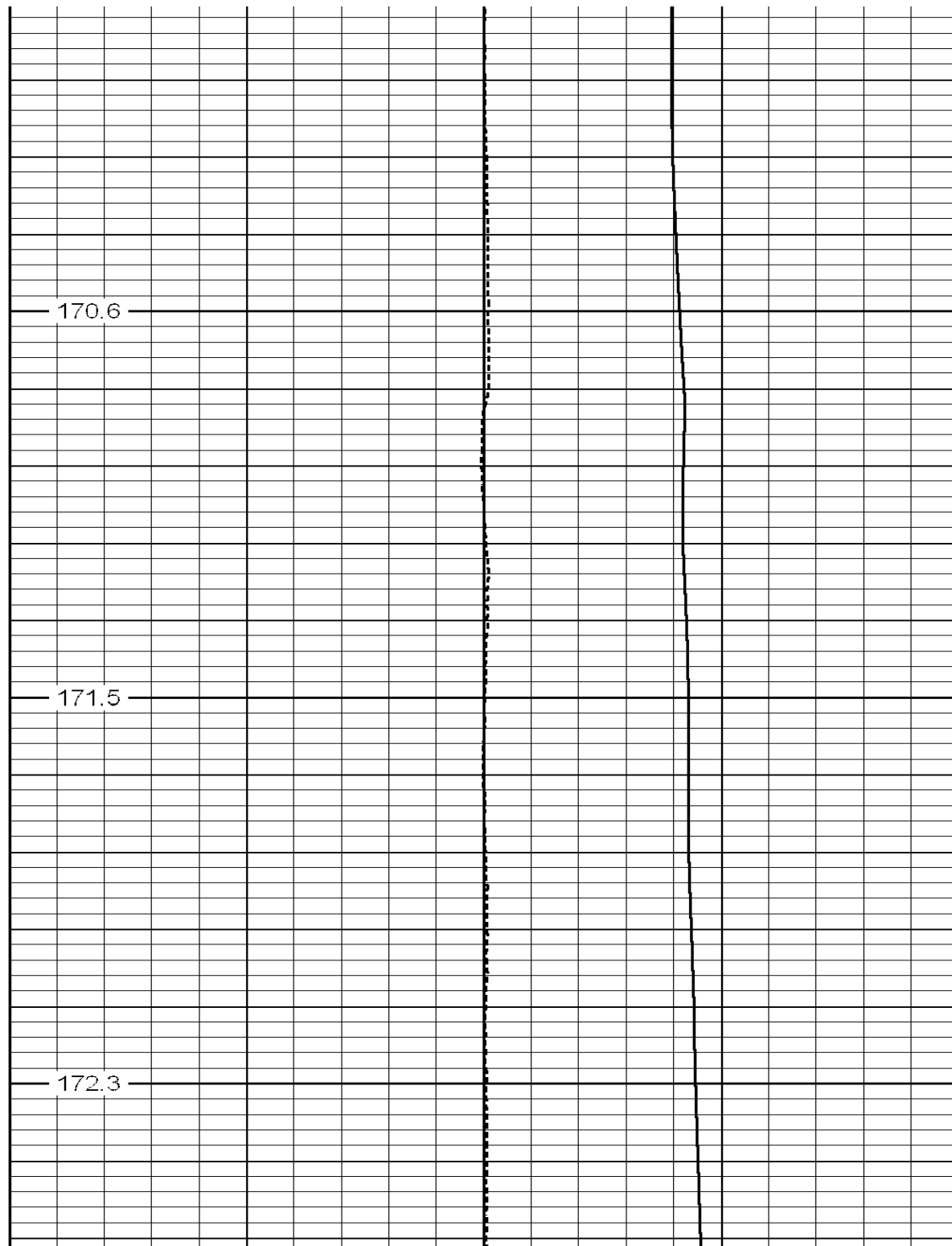
169.5



7750

7800

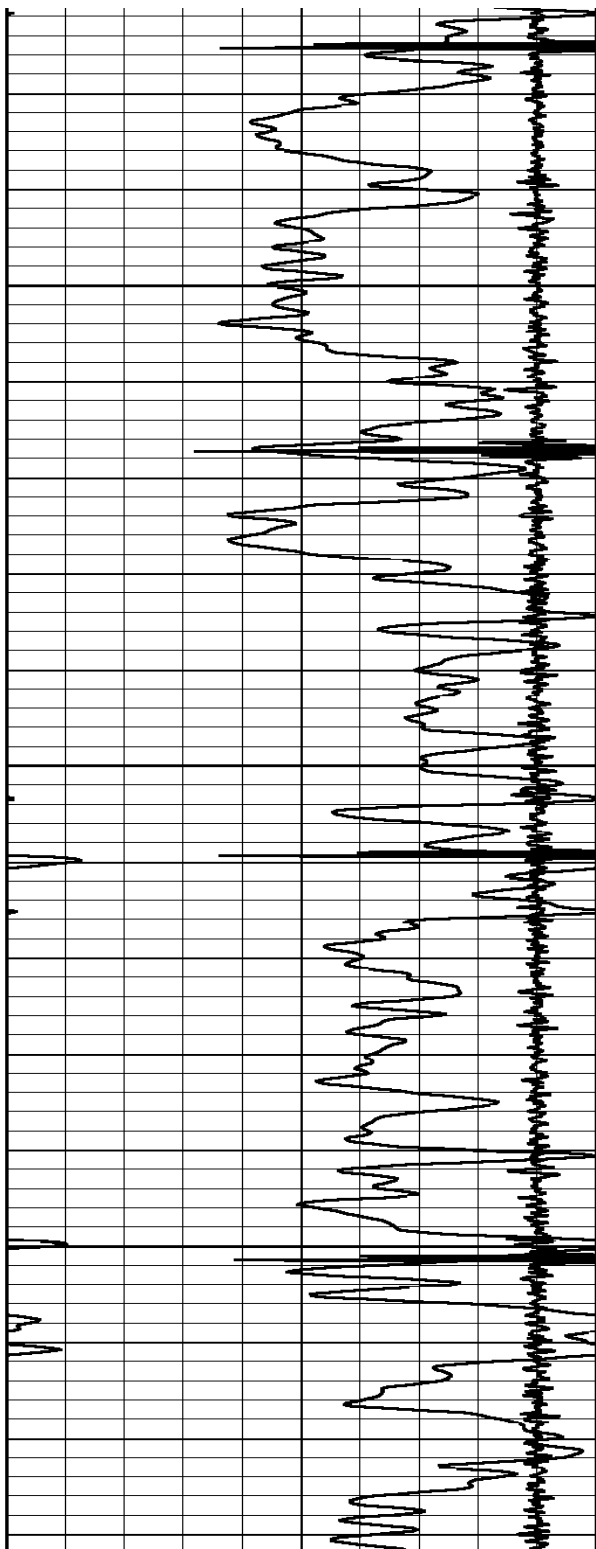
7850



170.6

171.5

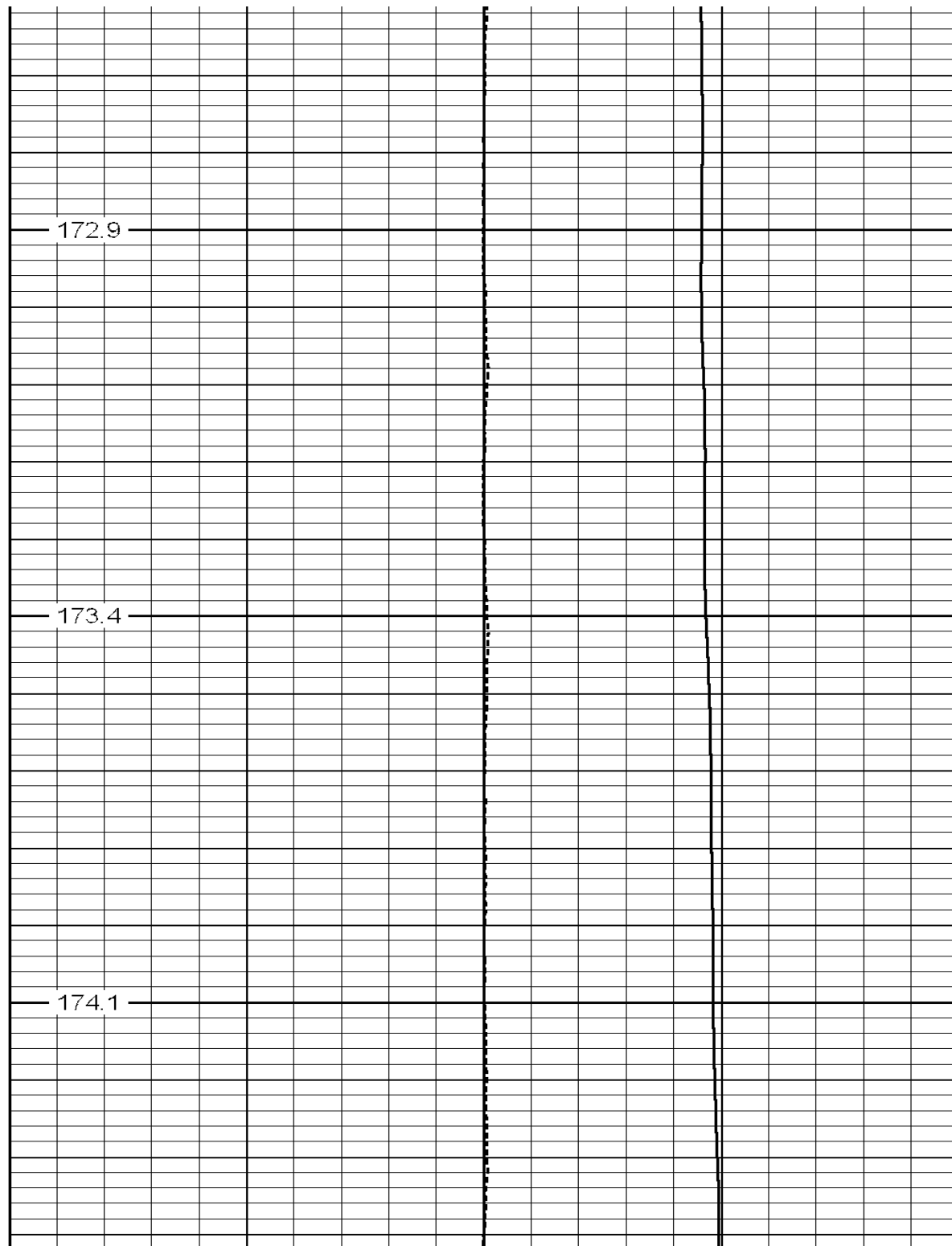
172.3

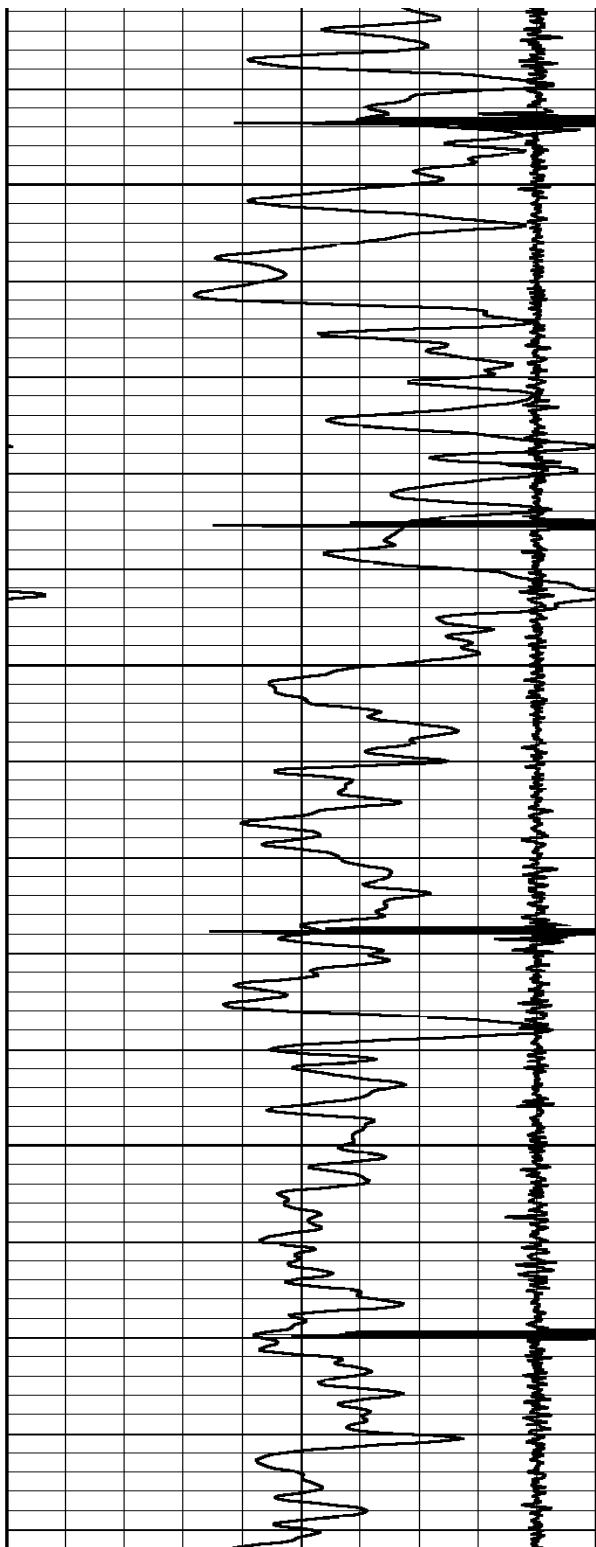


7900

7950

8000

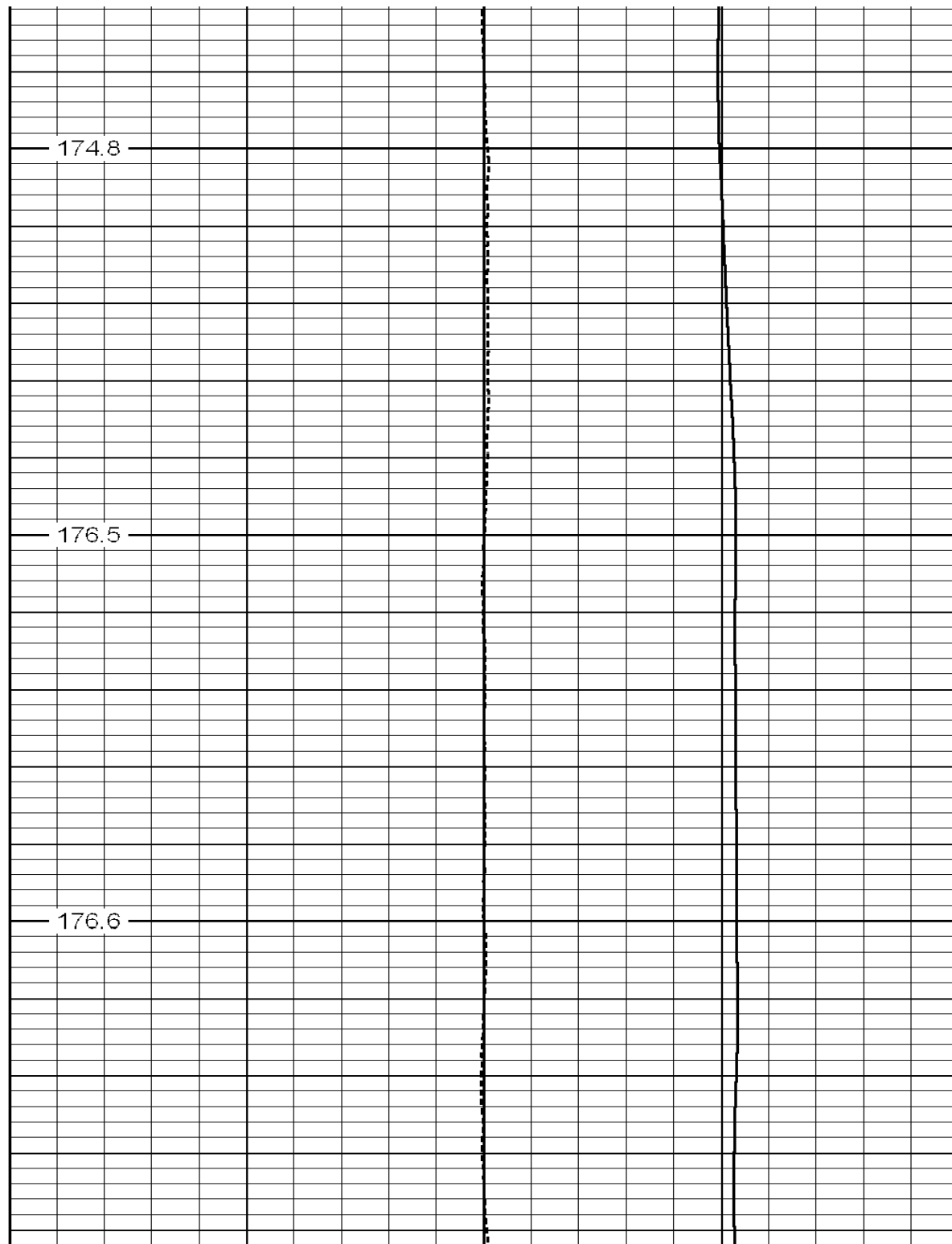


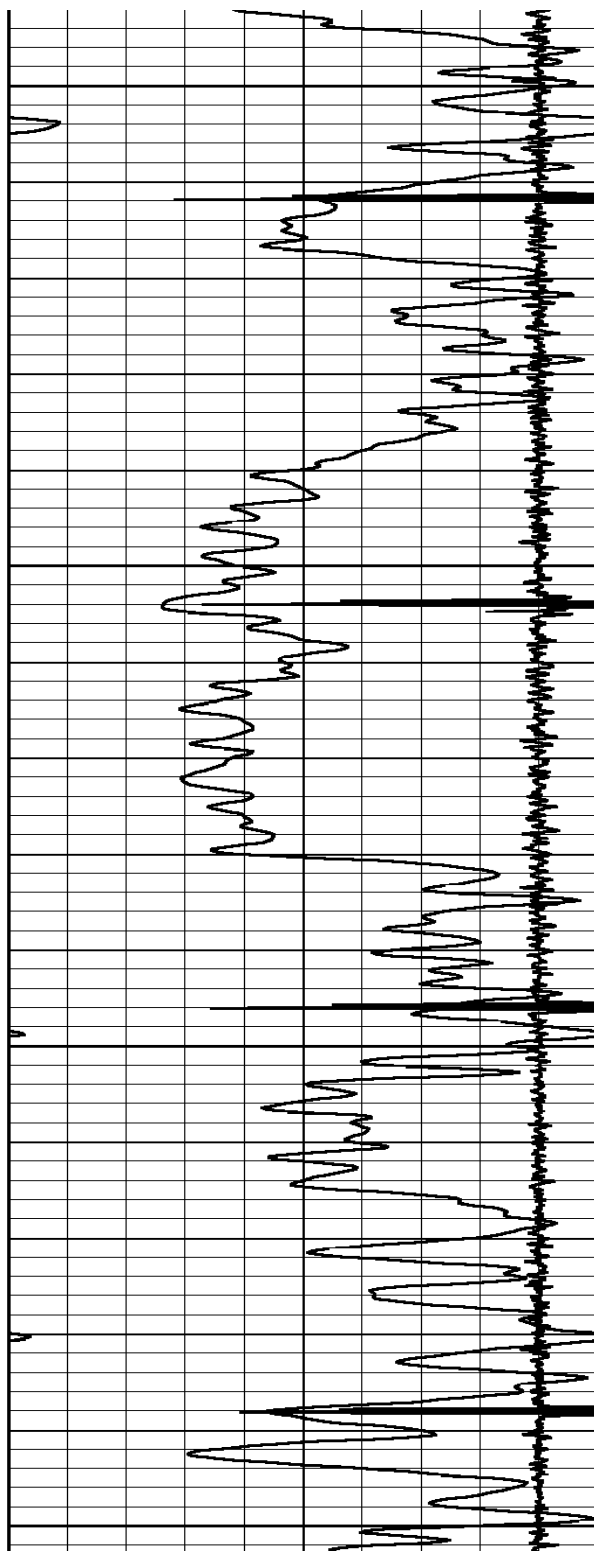


8050

8100

8150



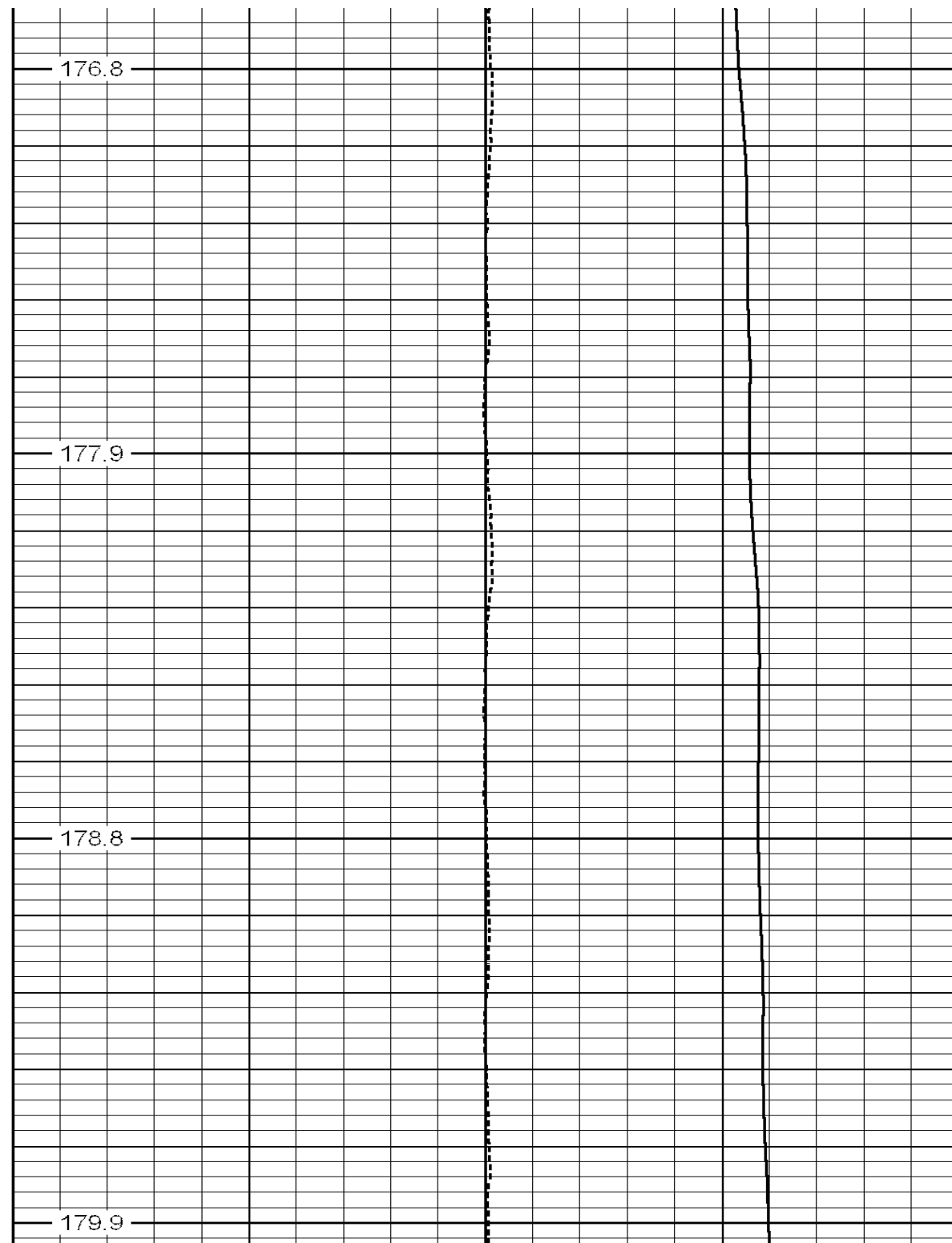


8200

8250

8300

8350

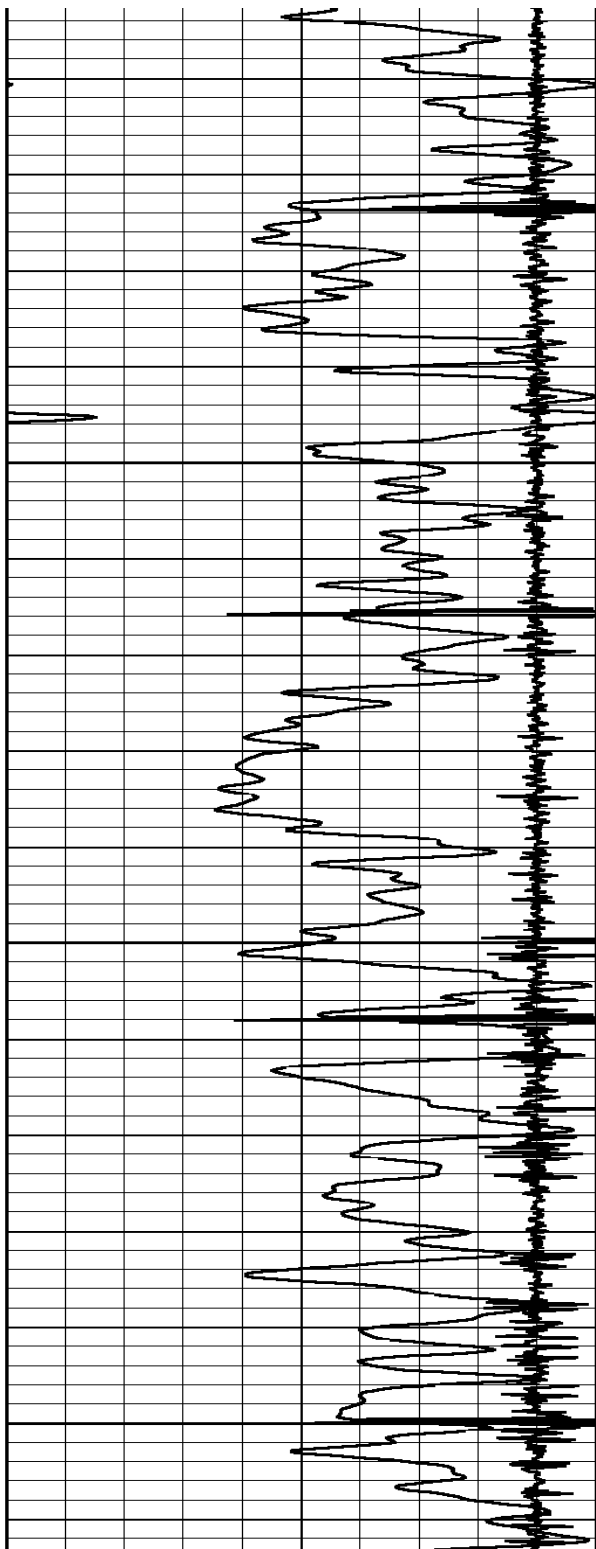


176.8

177.9

178.8

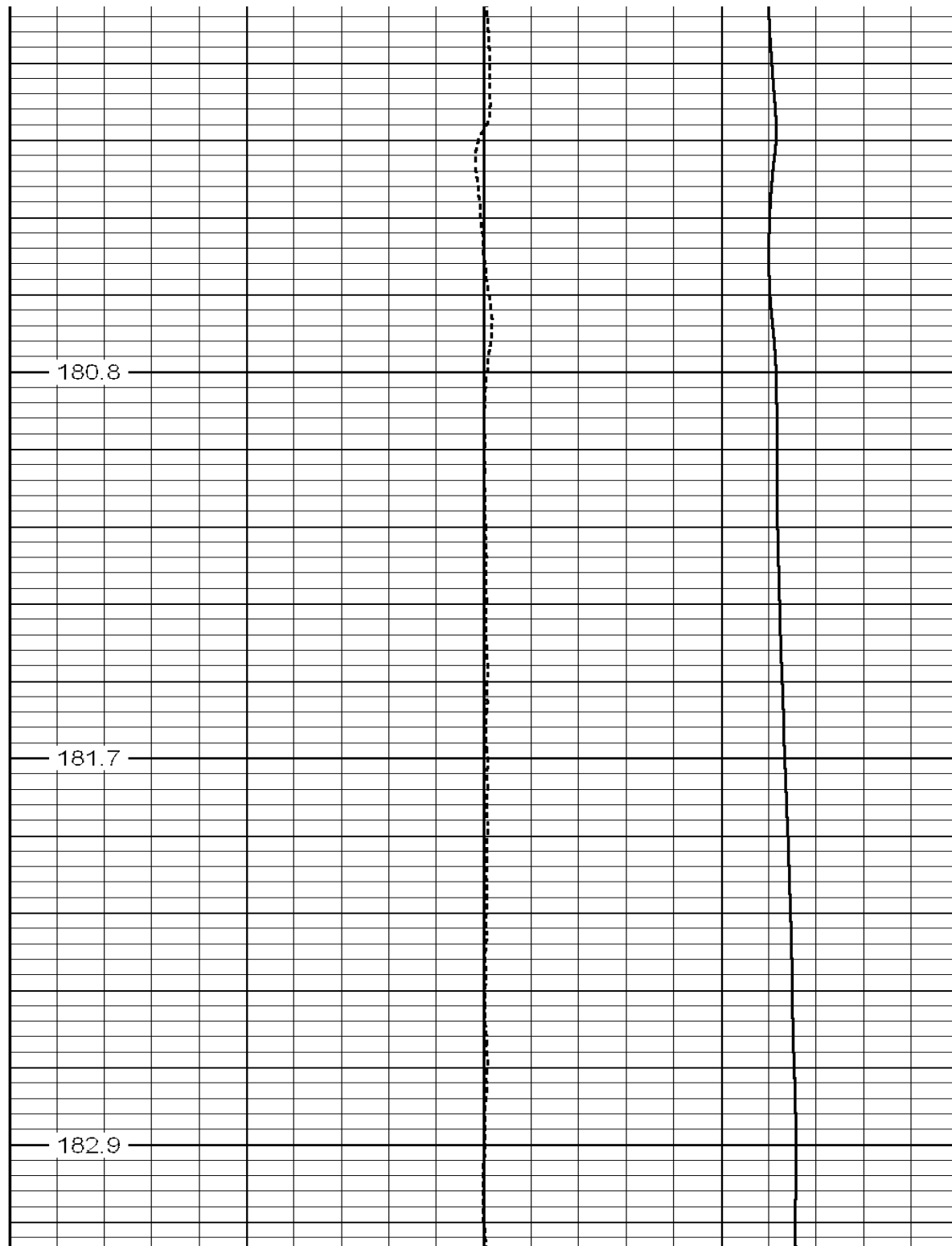
179.9



8400

8450

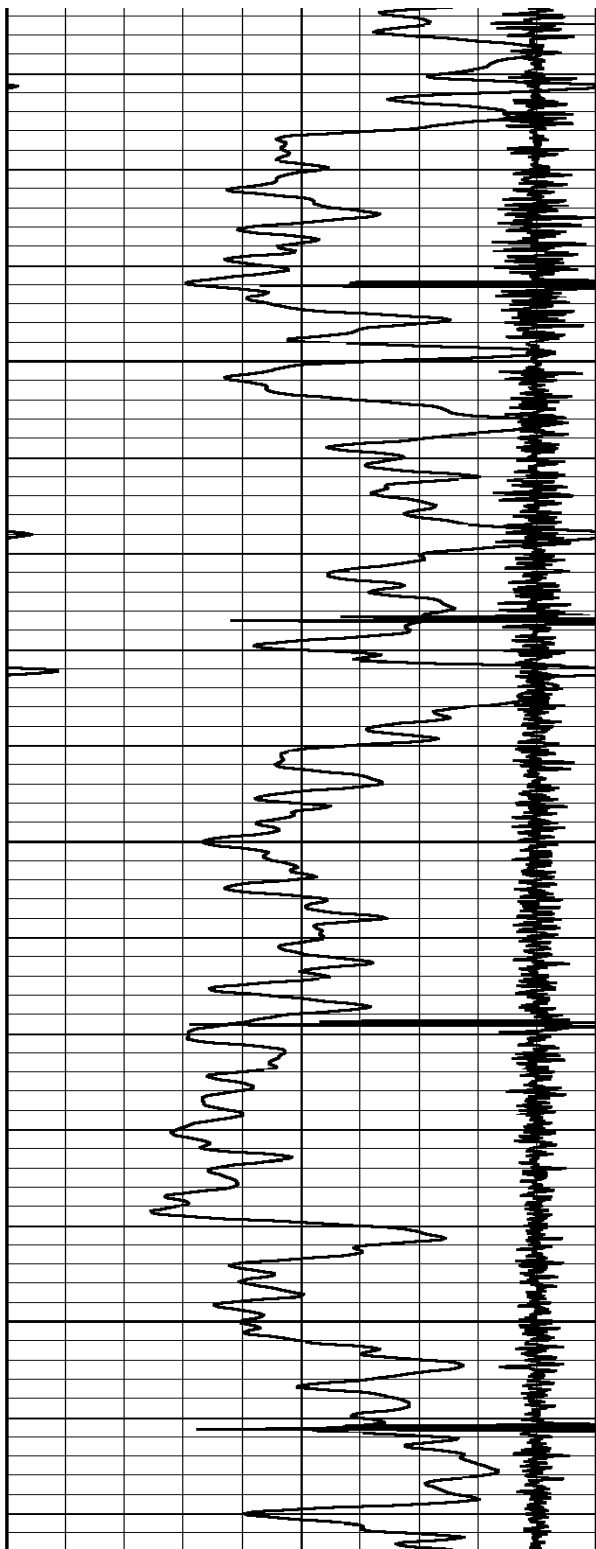
8500



180.8

181.7

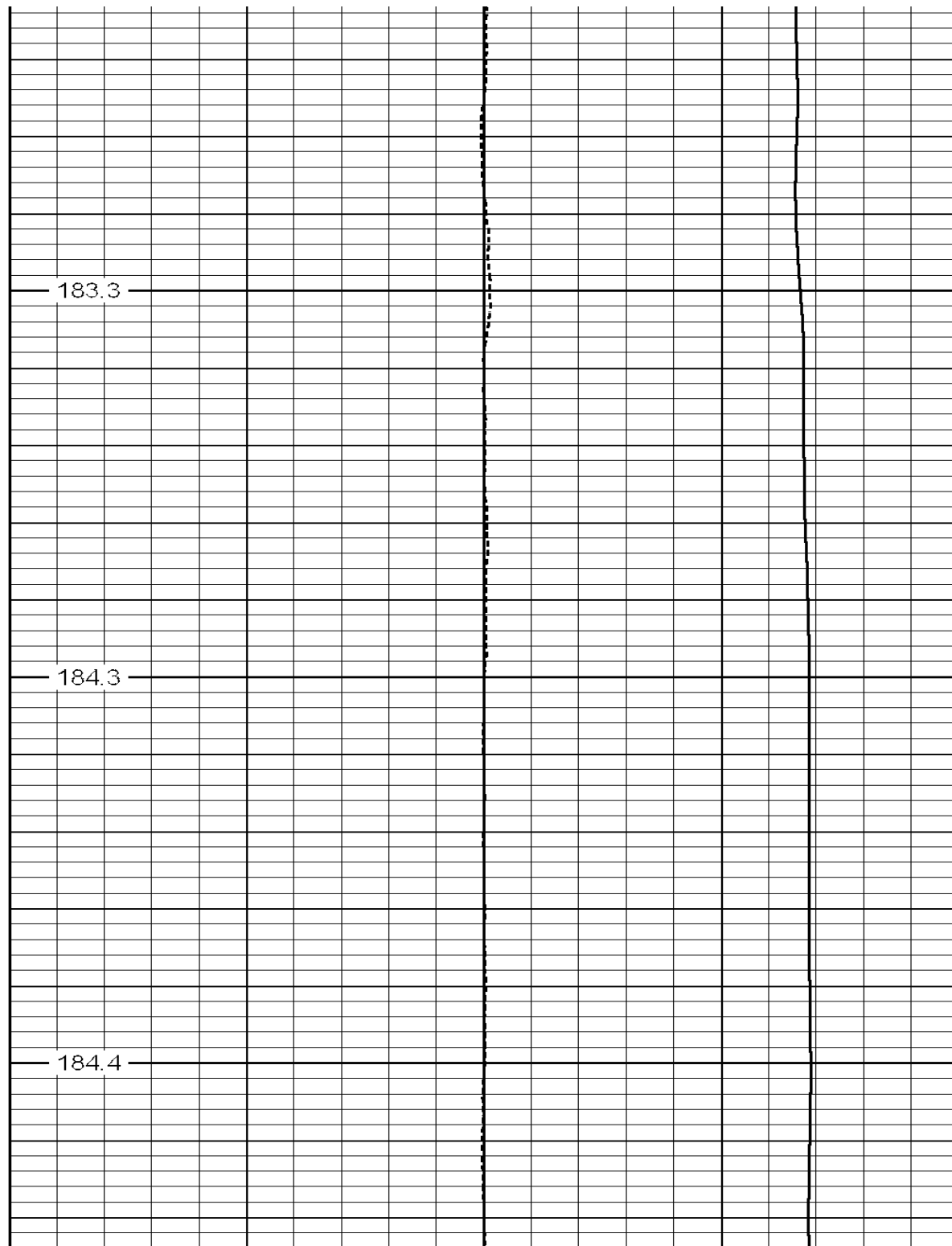
182.9

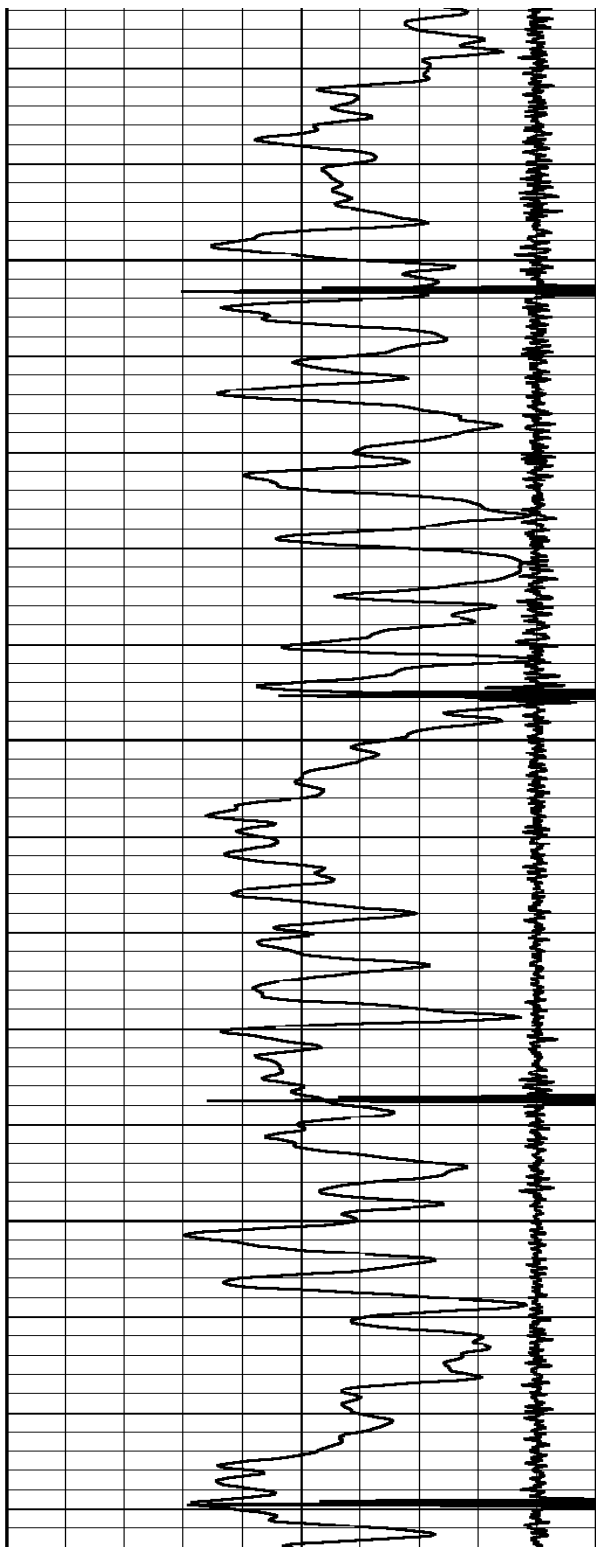


8550

8600

8650

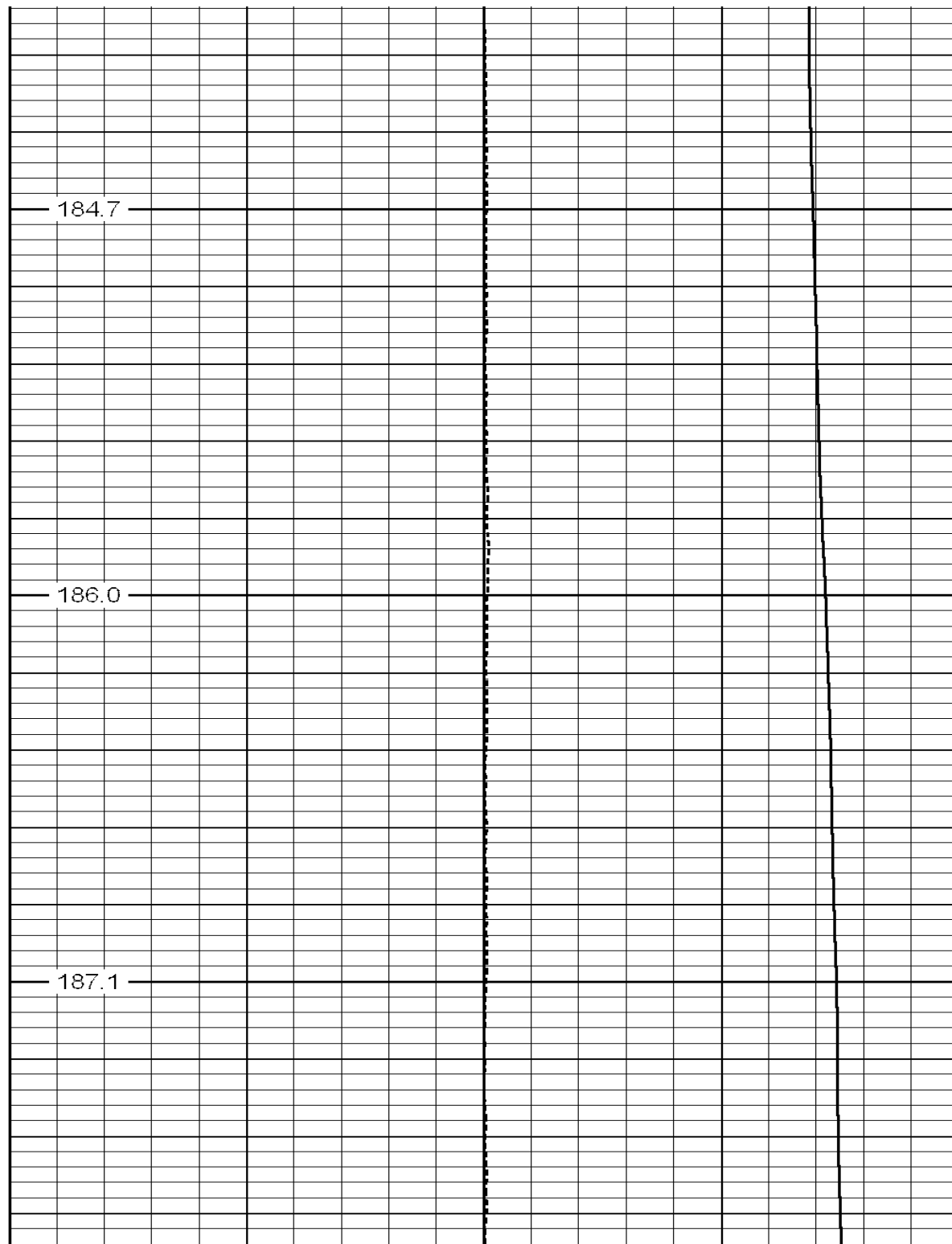




8700

8750

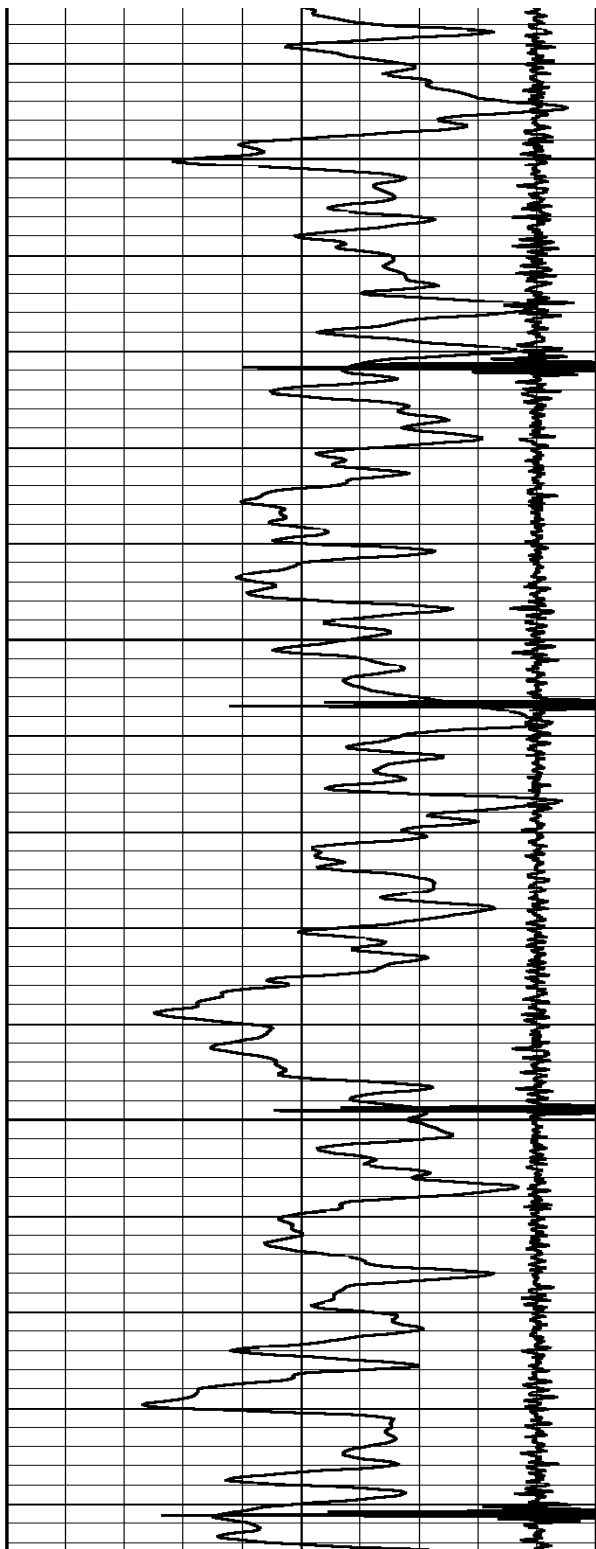
8800



184.7

186.0

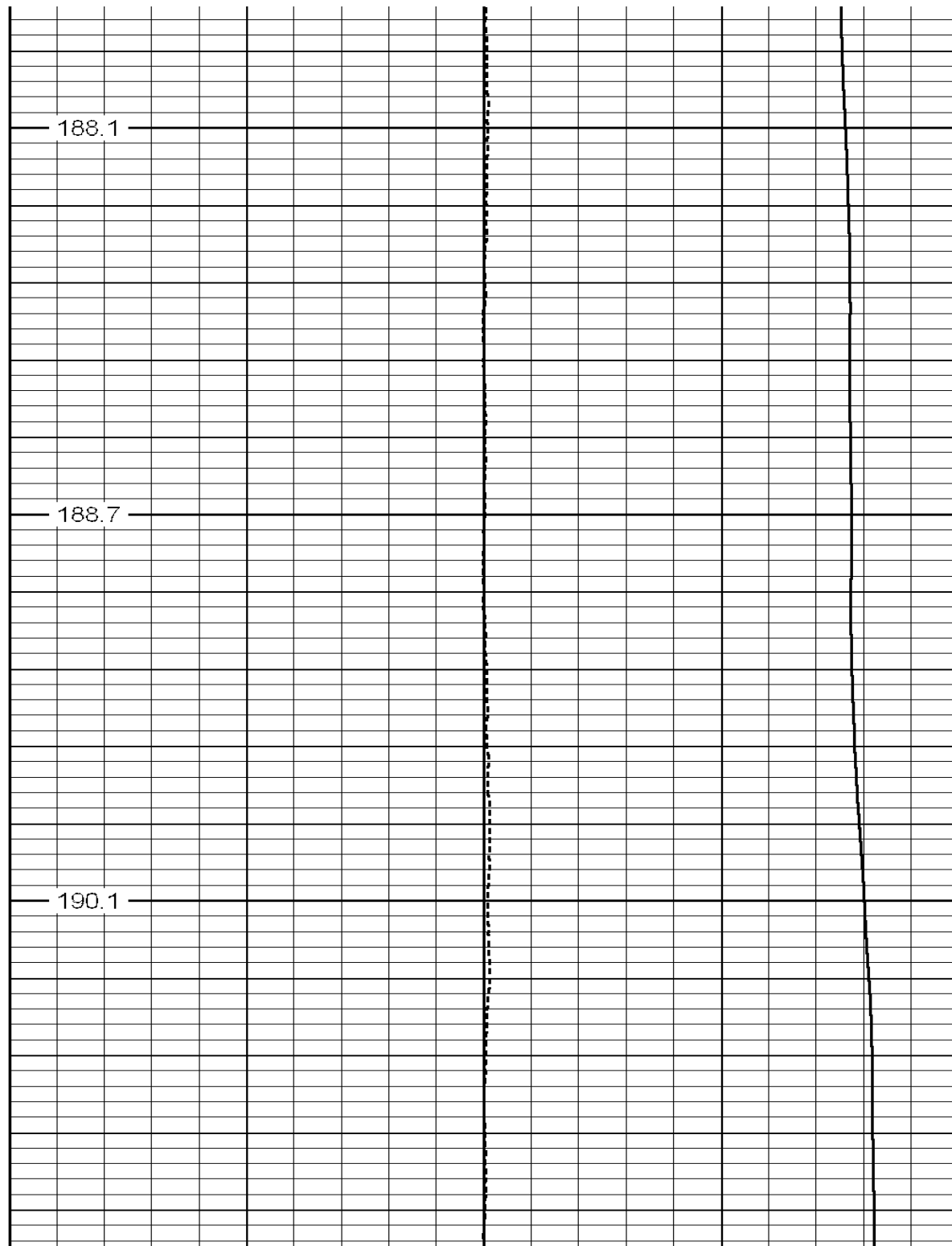
187.1

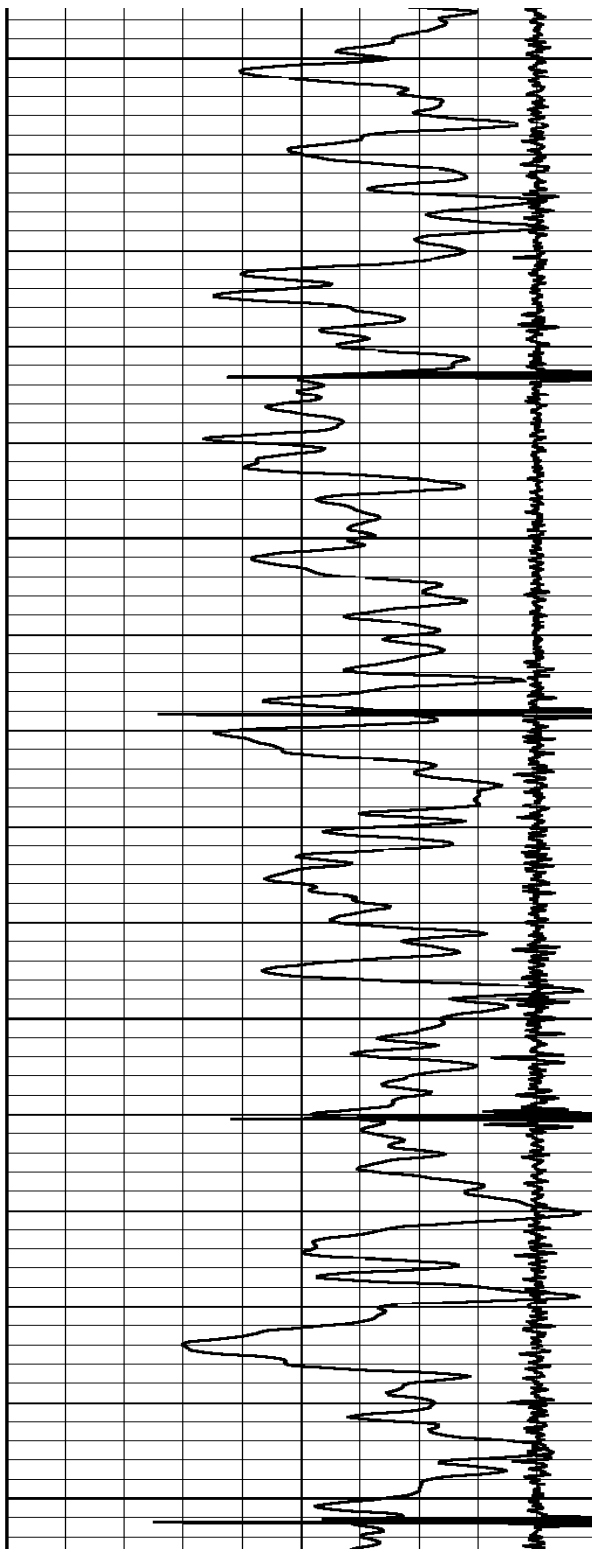


8850

8900

8950



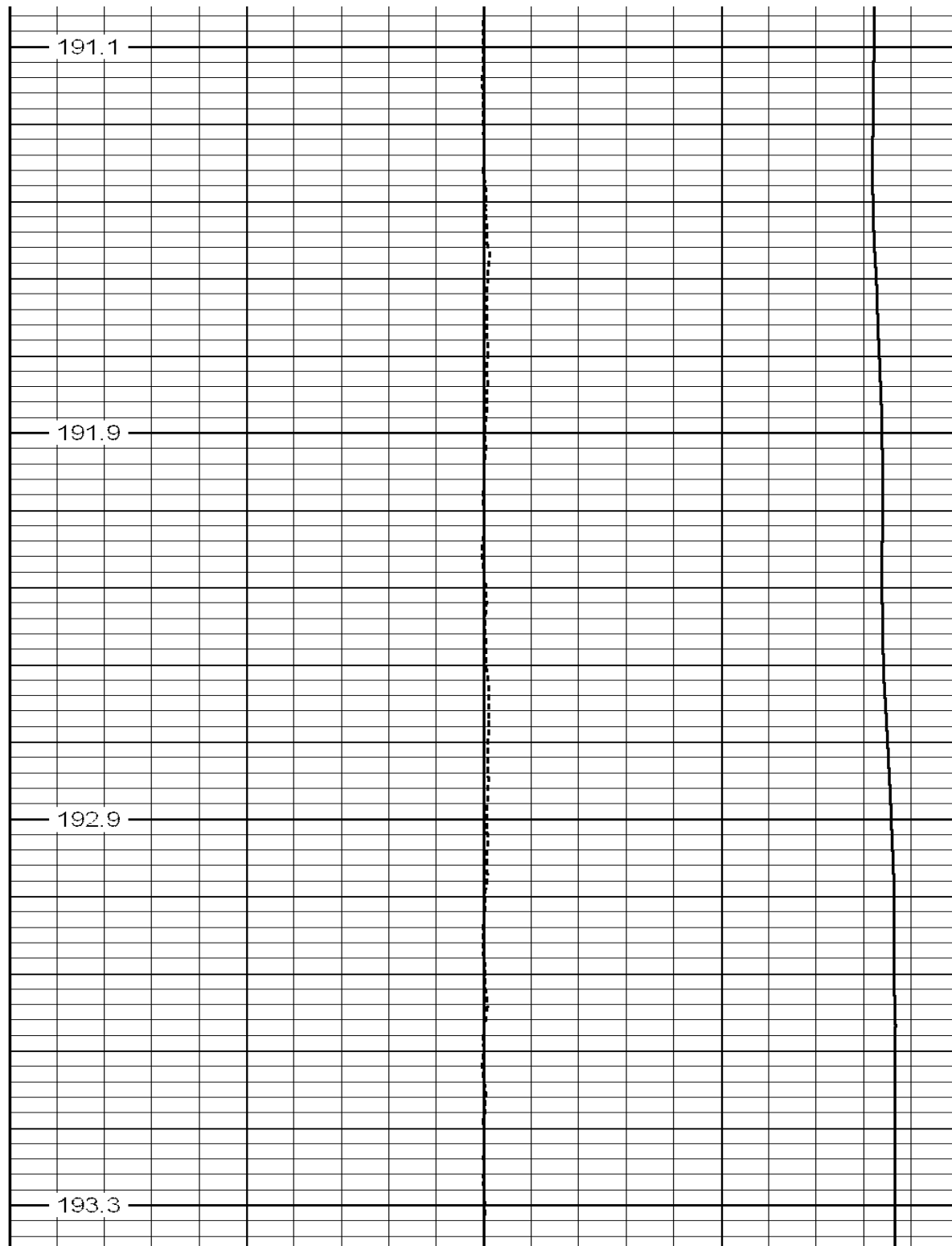


9000

9050

9100

9150

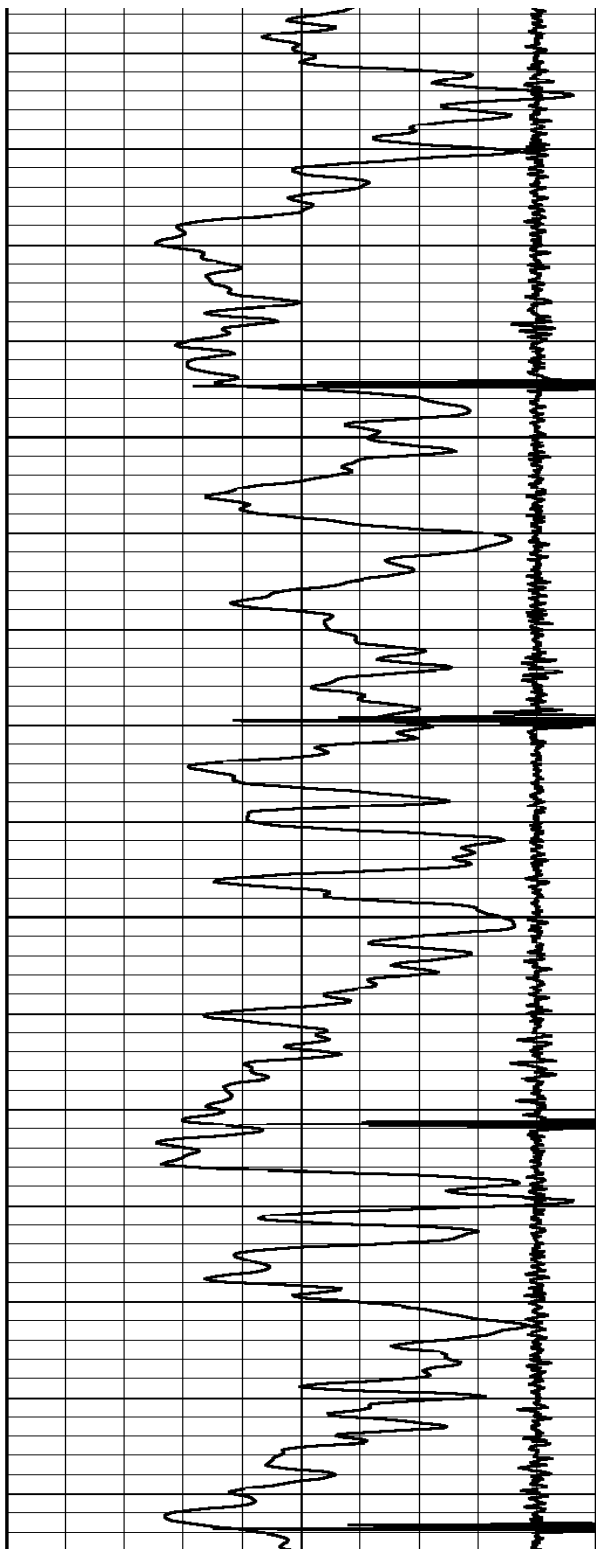


191.1

191.9

192.9

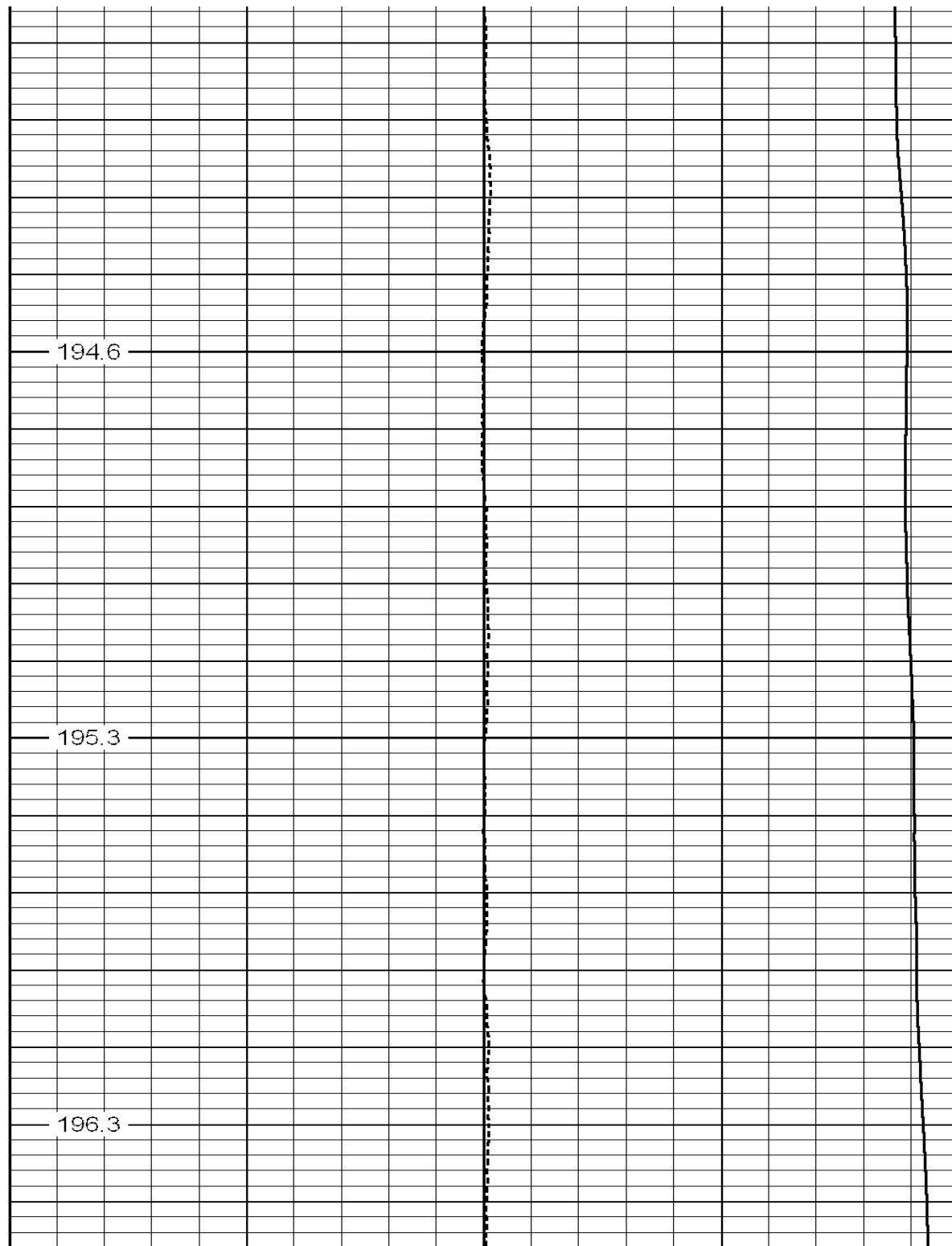
193.3



9200

9250

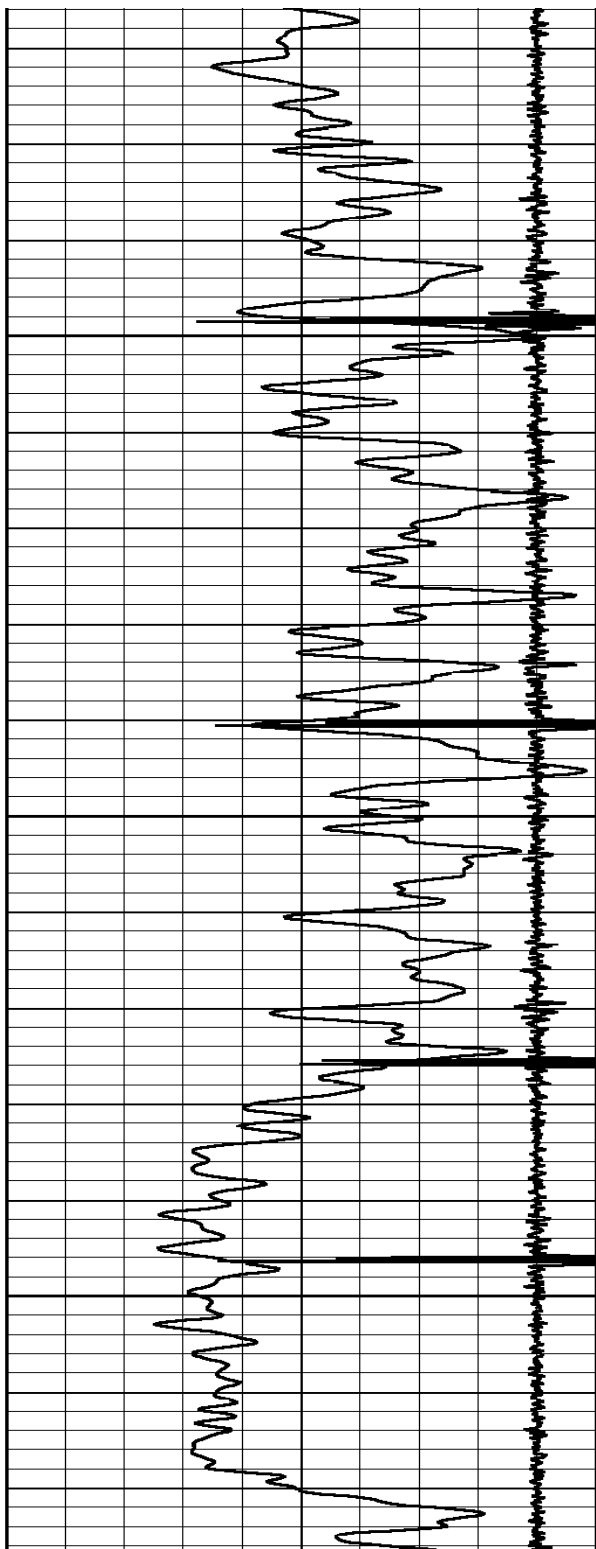
9300



194.6

195.3

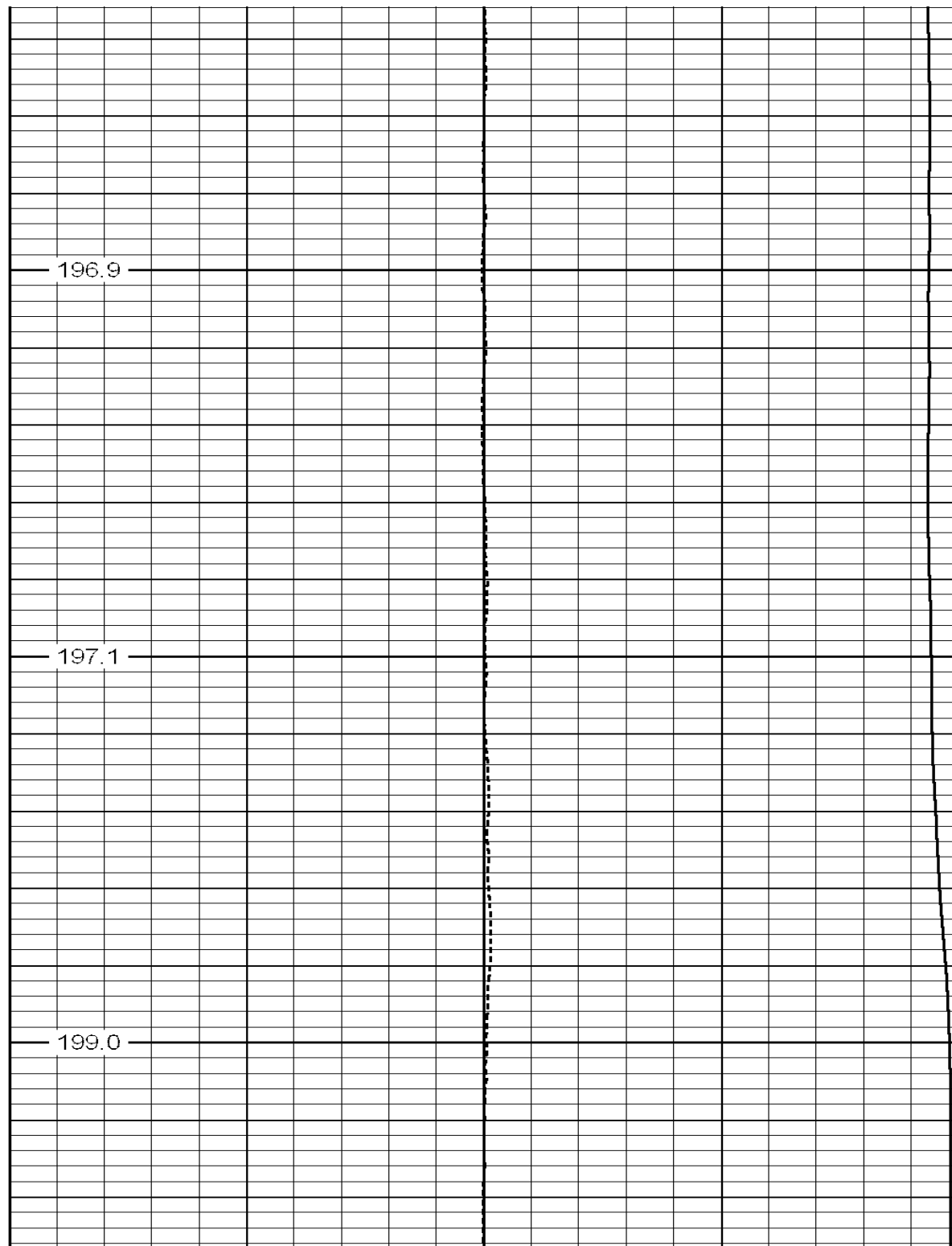
196.3



9350

9400

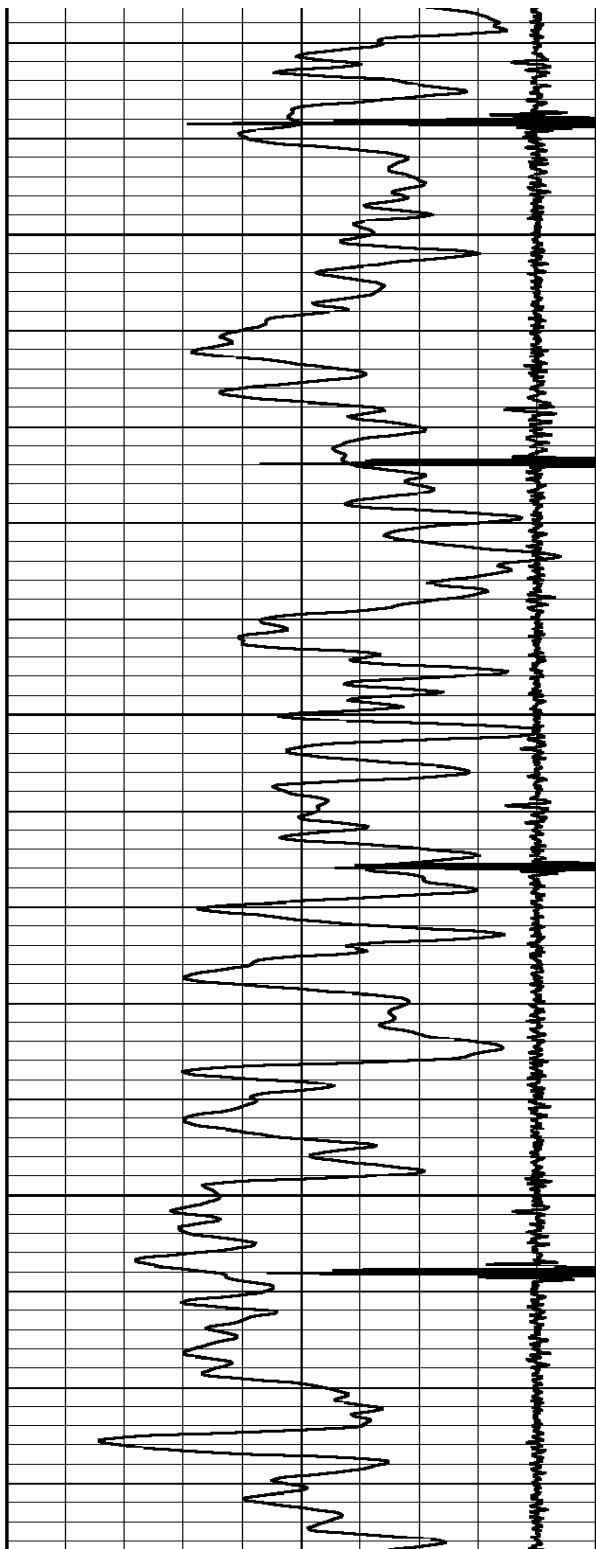
9450



196.9

197.1

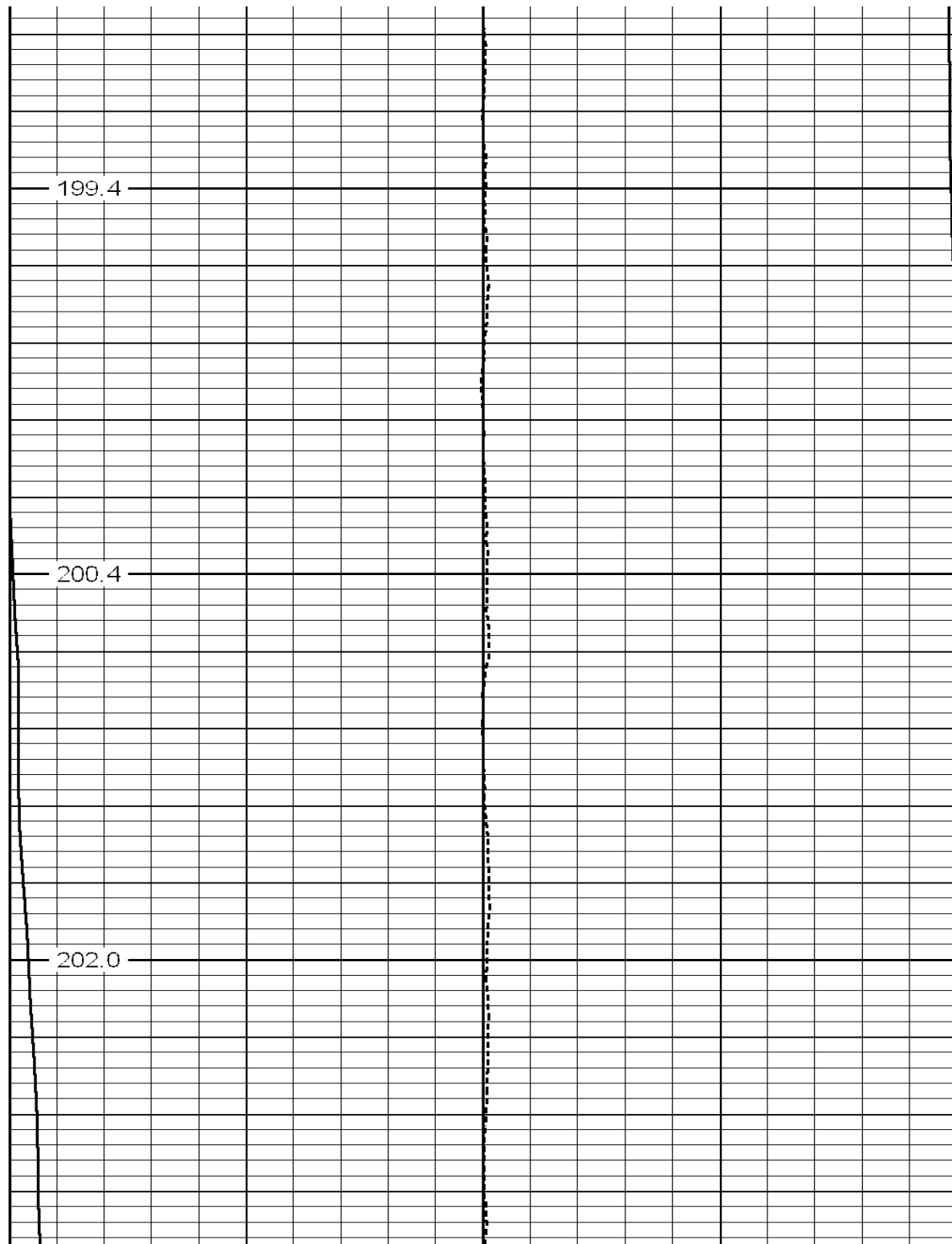
199.0



9500

9550

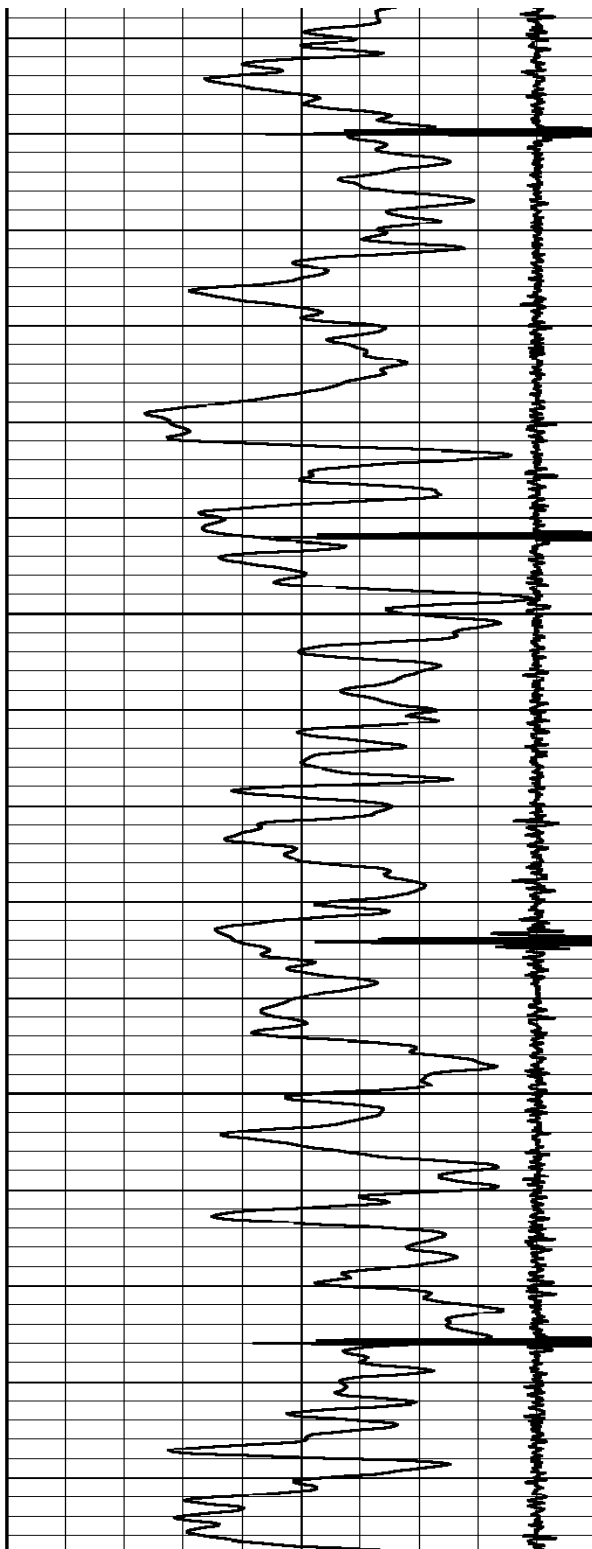
9600



199.4

200.4

202.0



9650

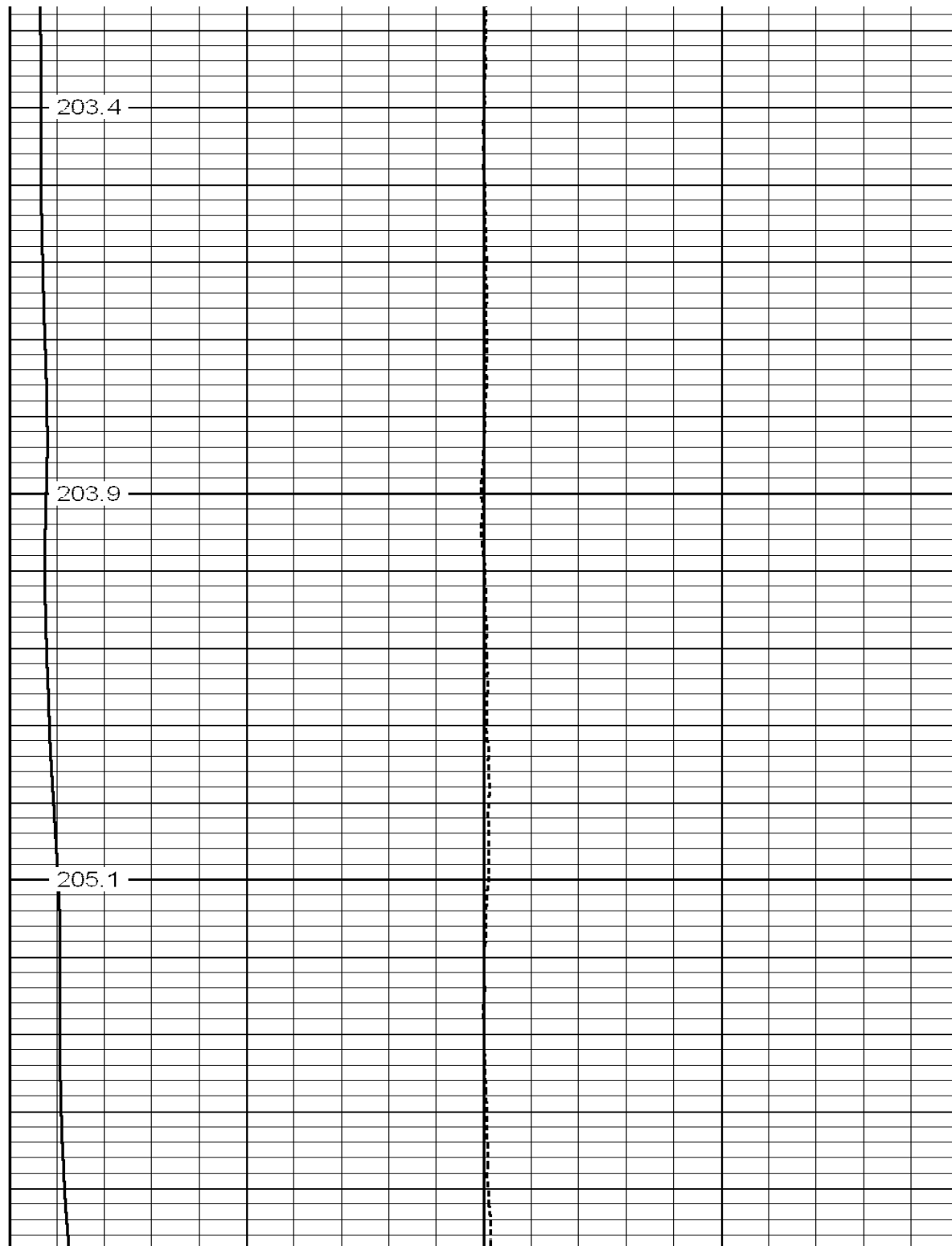
9700

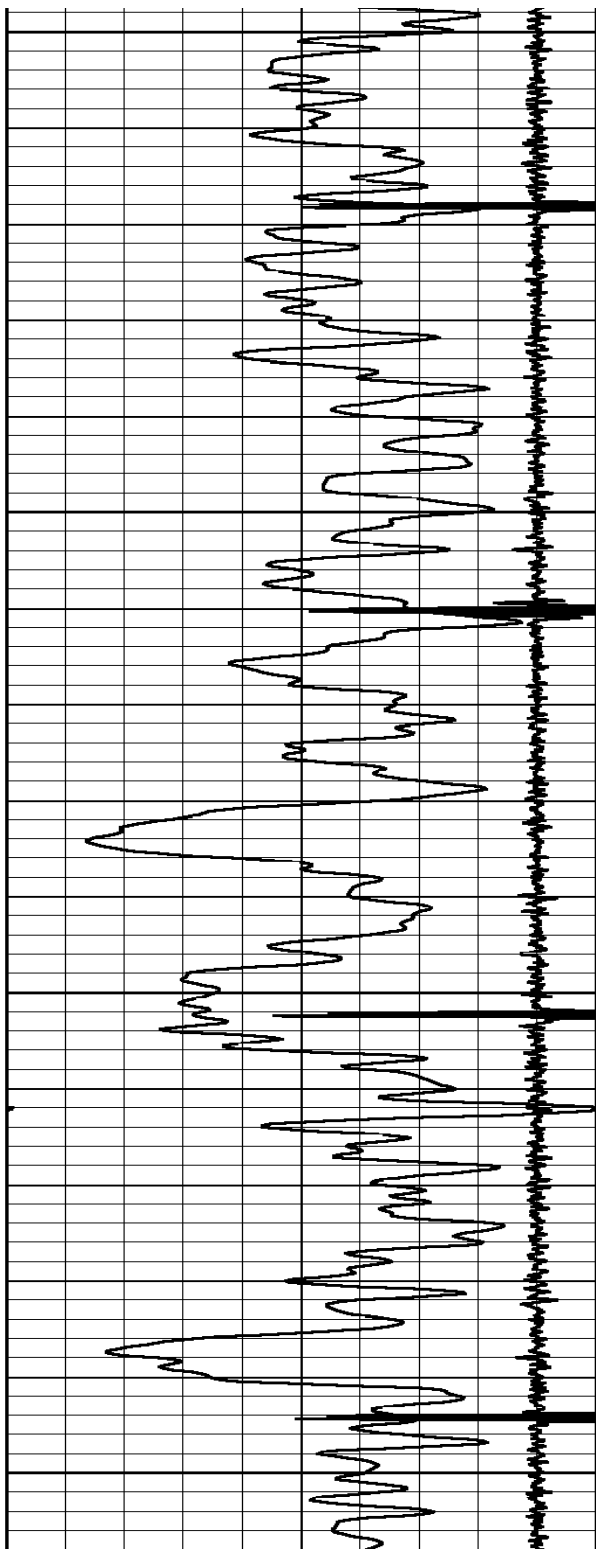
9750

203.4

203.9

205.1



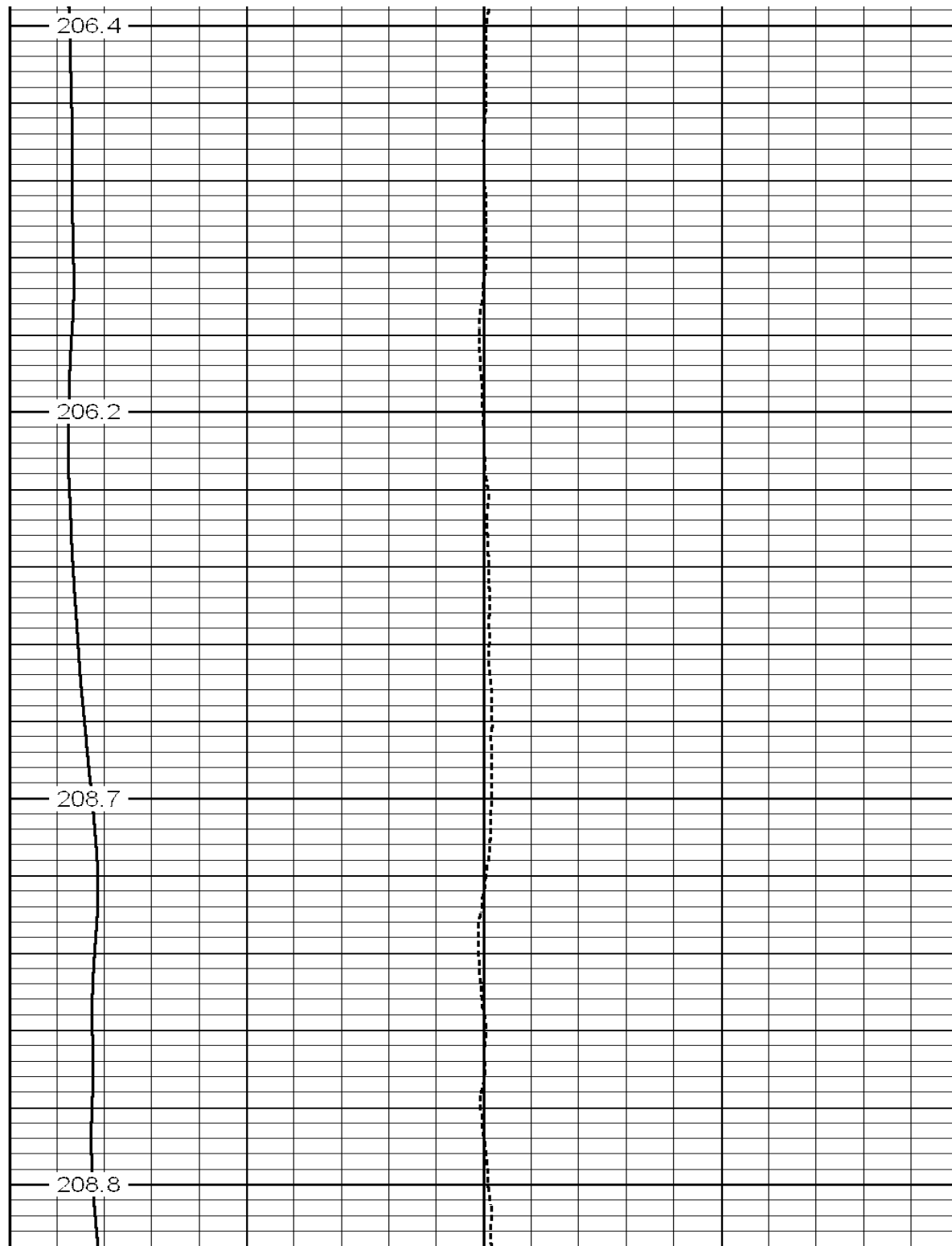


9800

9850

9900

9950

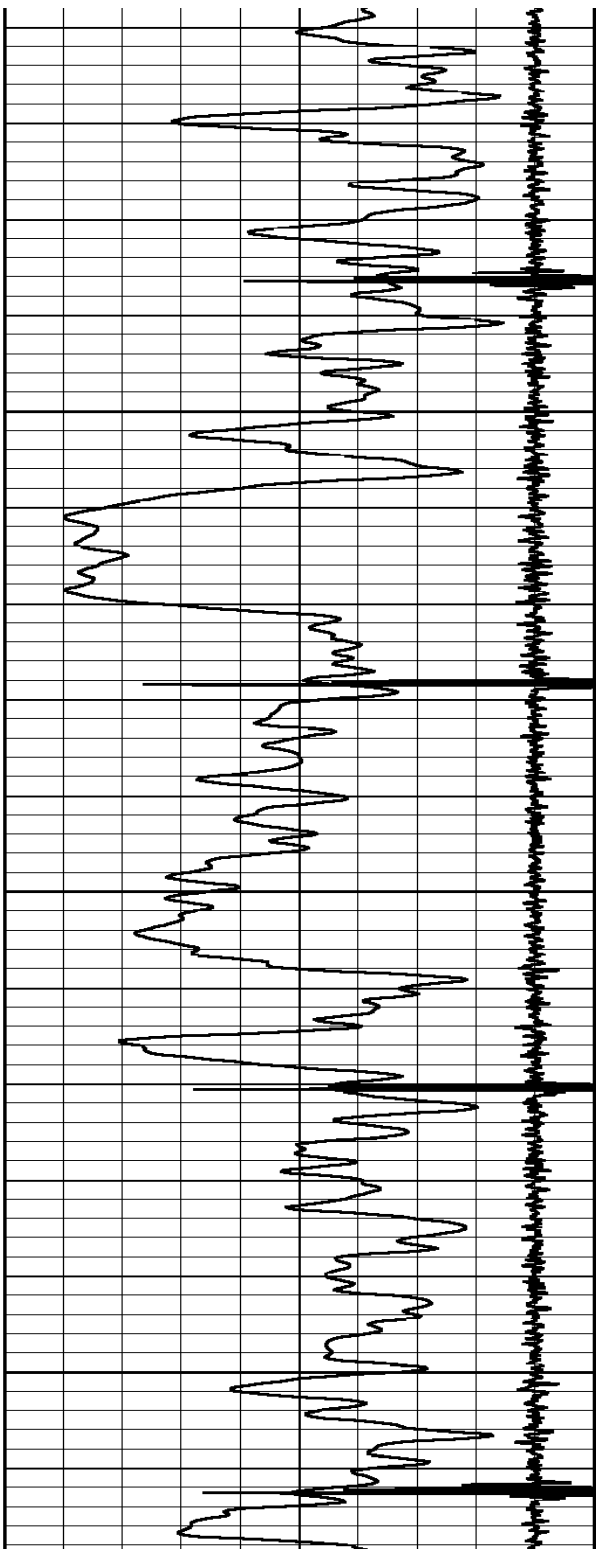


206.4

206.2

208.7

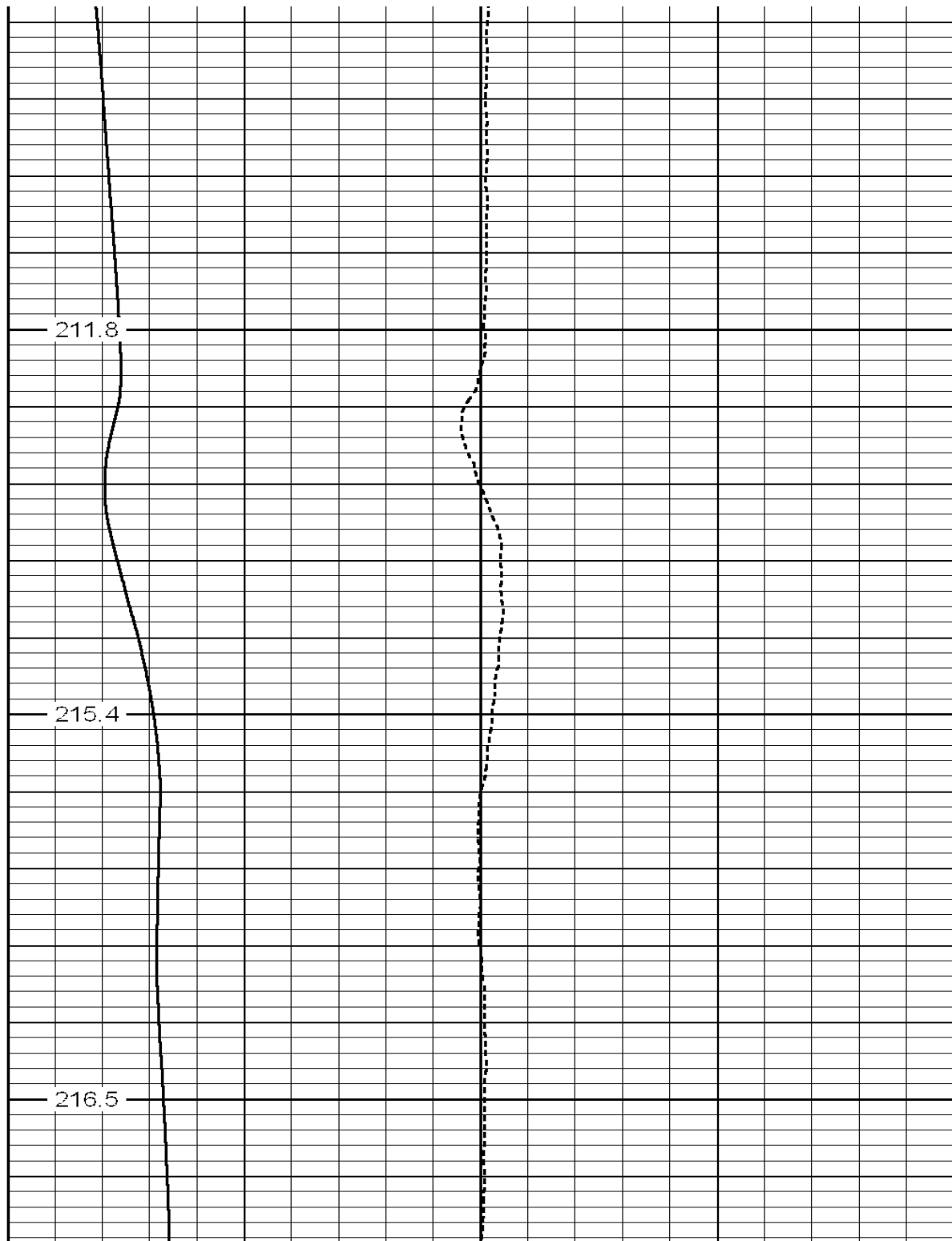
208.8



10000

10050

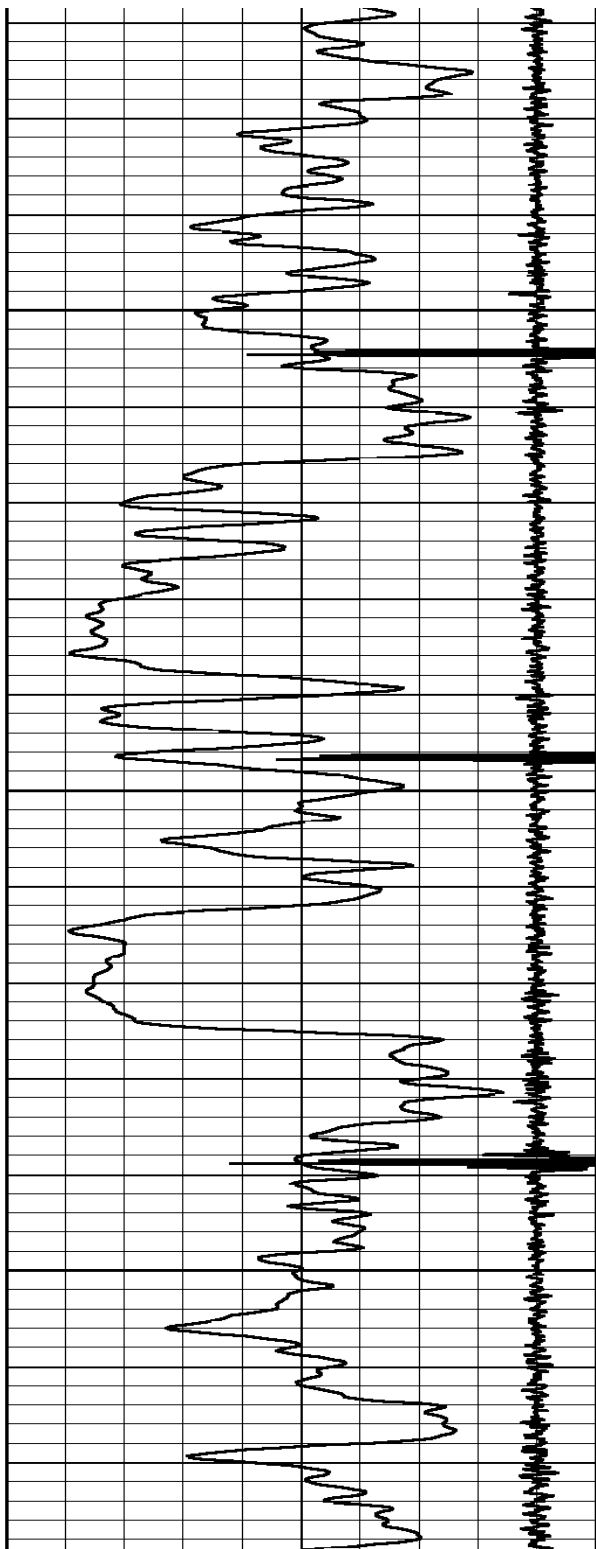
10100



211.8

215.4

216.5



10150

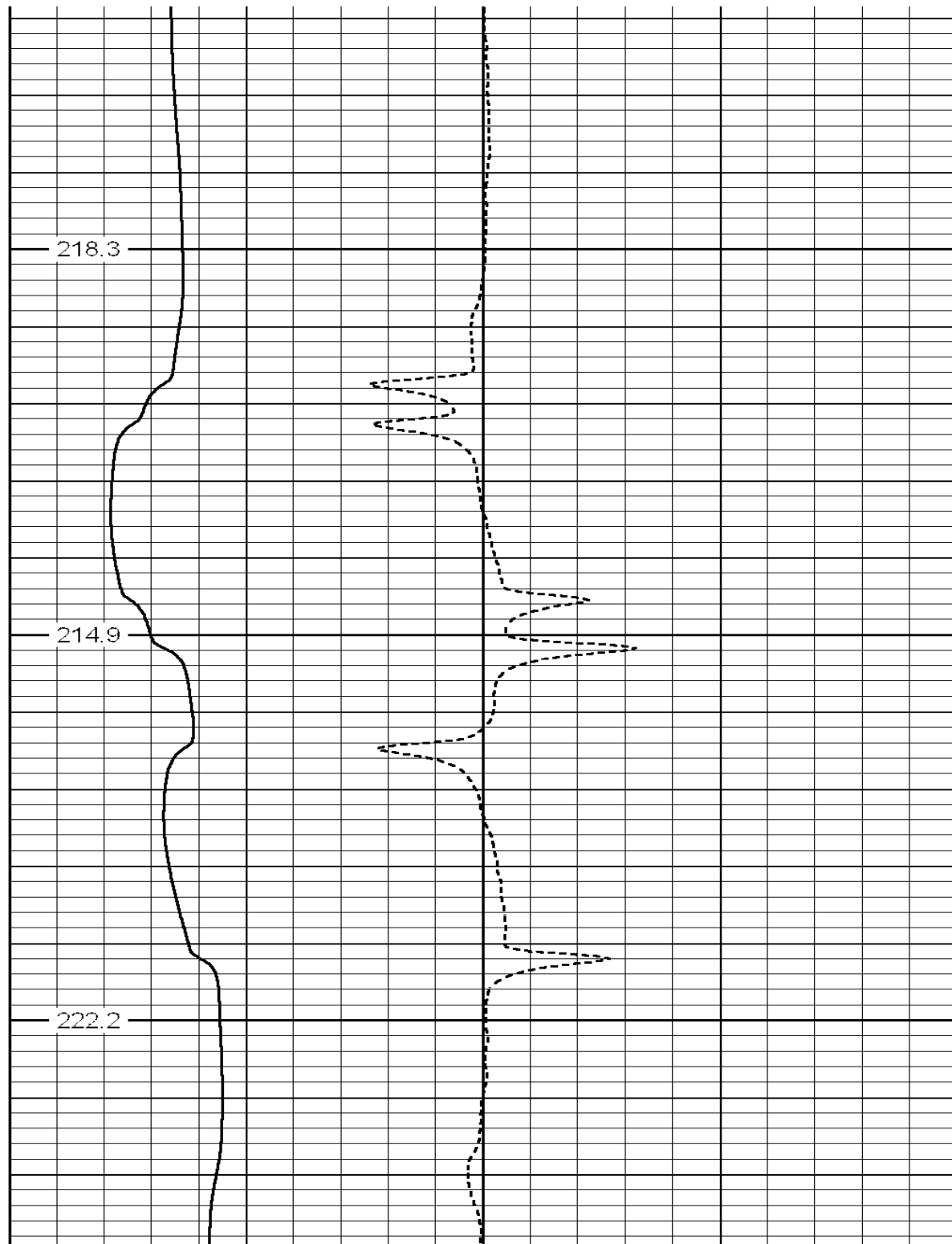
218.3

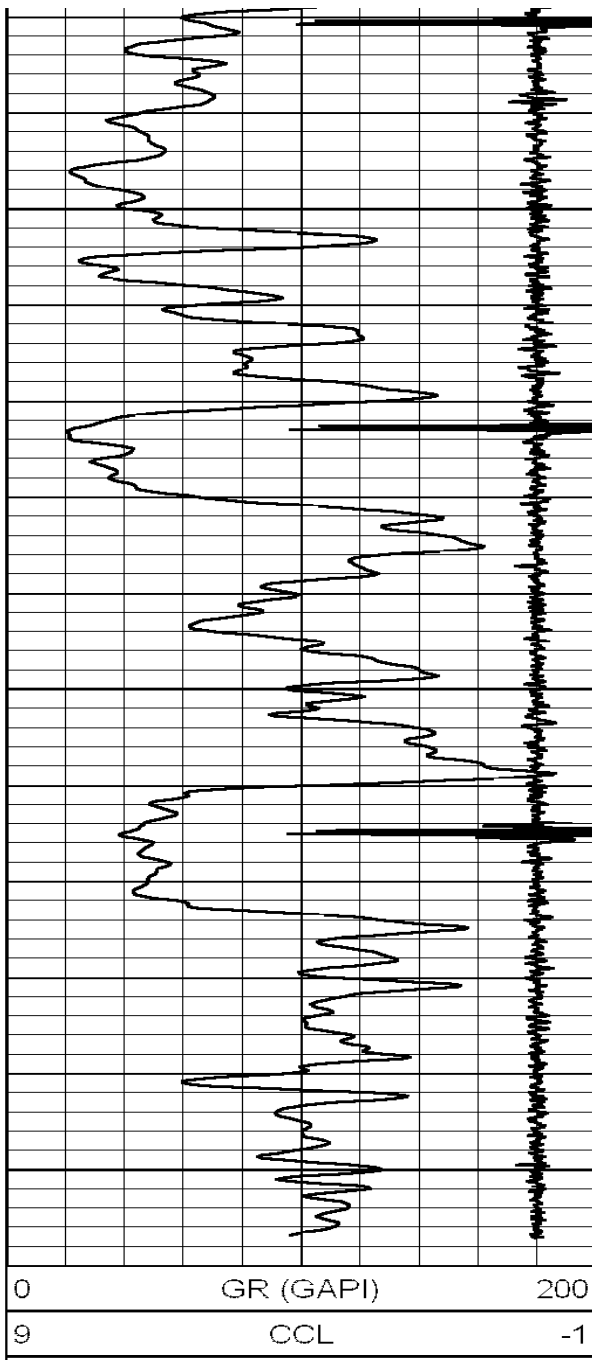
10200

214.9

10250

222.2

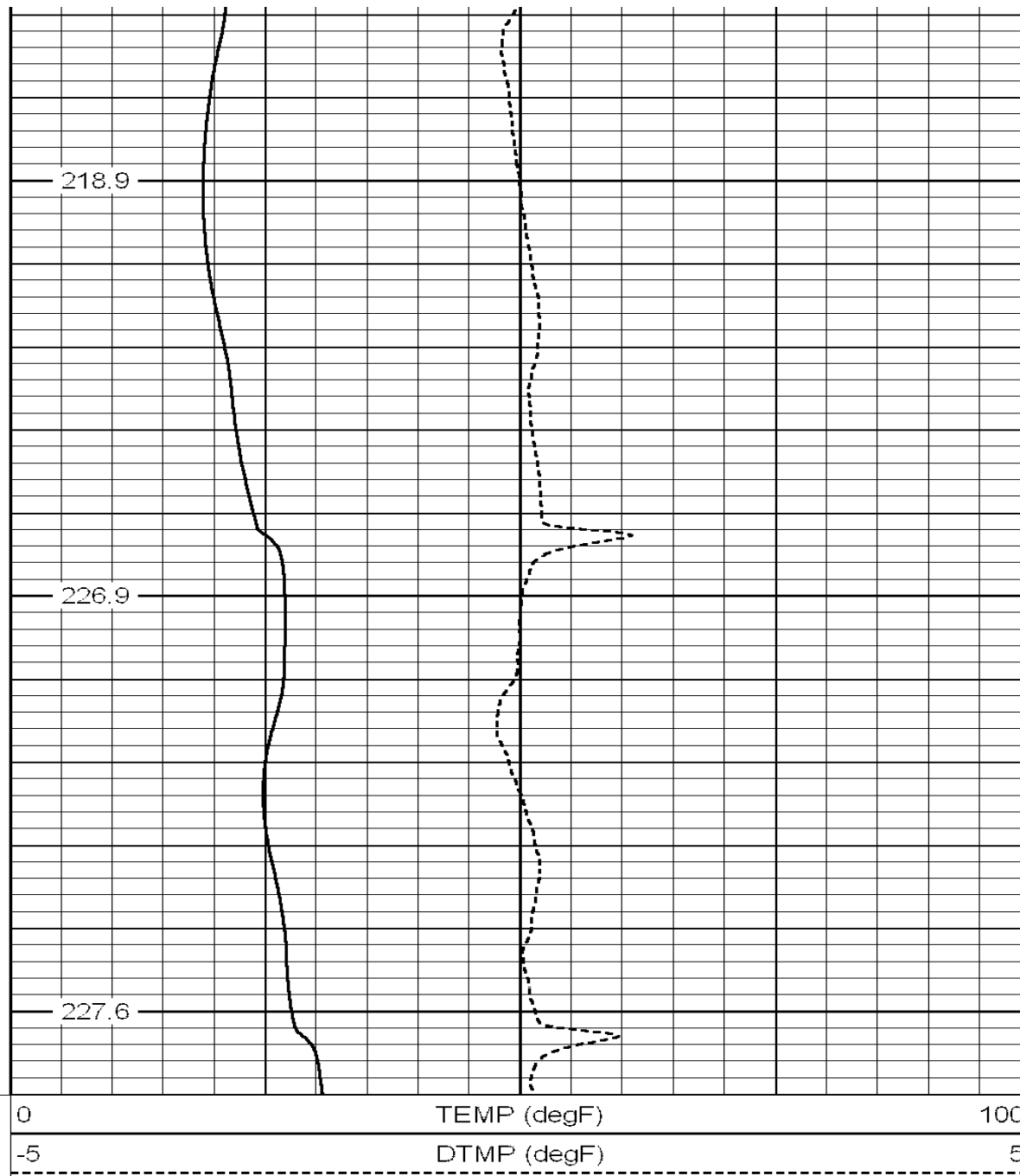




10300

10350

10400



TEMPERATURE LOG

MAIN PASS

HALLIBURTON

Calibration Report

Database File: lar_s_leverich_18_05d.db
 Dataset Pathname: temp_main1
 Dataset Creation: Fri Apr 03 00:15:04 2009

Temperature Calibration Report

Serial Number: 0001
 Tool Model: 1.375TEMP
 Performed: Fri Jul 05 03:18:21 1996

	Reference	Reading
Low Reference:	0.00 degF	0.00 cps
High Reference:	1.00 degF	1.00 cps
Gain:	0.10	
Offset:	0.00	
Delta Spacing	1	

Gamma Ray Calibration Report

Type / Serial: Probe / 061018

SHOP CALIBRATION

Thu Apr 02 17:09:29 2009

	Counts/Sec.	Gain	Offset	Jig	Units
Background	27.7				cps
Calibrator	200.1				cps
		1.4617			GAPI/cps

PRIMARY VERIFICATION

Thu Apr 02 17:11:03 2009

Background	37.2				cps
Calibrator	291.0				cps
Difference				253.8	GAPI

BEFORE SURVEY VERIFICATION

Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

AFTER SURVEY VERIFICATION

Background	0.0				cps
Calibrator	0.0				cps

Calibrator
Difference

0.0

0.0

ups
GAPI

Cement Bond Log Calibration Report

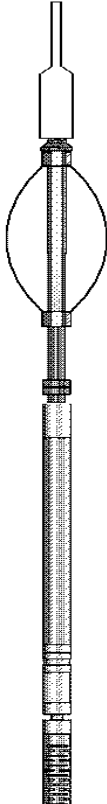
Serial Number: 061115
Tool Model: Probe
Performed: Thu Apr 02 17:23:40 2009

Depth: 55.35 ft
Casing Diameter: 4.5 in

3' Spacing 5' Spacing

Signal Zero: 1 mV
Calibrated Amplitude: 82 mV
Reading at Signal Zero: -0.0102295 V
Reading in Free Pipe: 1.77527 V

Gain: 45.3655 51.1676
Offset: 1.46407 1.41224

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			STND_CH 1.4375 IN CABLE HEAD	1.50	1.44	1.00
			CENT-Probe (PT_MONO2)	2.88	2.75	35.00

Company	LARAMIE ENERGY		
Well	SOUTH LEVERICH 18-05D		
Field	RULISON		
County	GARFIELD	State	CO
HALLIBURTON		TEMPERATURE LOG	